

**NUCLEAR REGULATORY COMMISSION
ISSUANCES**

**OPINIONS AND DECISIONS OF THE
NUCLEAR REGULATORY COMMISSION
WITH SELECTED ORDERS**

January 1, 2006 – June 30, 2006

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PREFACE

This is the sixty-third volume of issuances (1–853) of the Nuclear Regulatory Commission and its Atomic Safety and Licensing Boards, Administrative Law Judges, and Office Directors. It covers the period from January 1, 2006, to June 30, 2006.

Atomic Safety and Licensing Boards are authorized by Section 191 of the Atomic Energy Act of 1954. These Boards, comprised of three members conduct adjudicatory hearings on applications to construct and operate nuclear power plants and related facilities and issue initial decisions which, subject to internal review and appellate procedures, become the final Commission action with respect to those applications. Boards are drawn from the Atomic Safety and Licensing Board Panel, comprised of lawyers, nuclear physicists and engineers, environmentalists, chemists, and economists. The Atomic Energy Commission (AEC) first established Licensing Boards in 1962 and the Panel in 1967.

Between 1969 and 1990, the AEC authorized Atomic Safety and Licensing Appeal Boards to exercise the authority and perform the review functions which would otherwise have been exercised and performed by the Commission in facility licensing proceedings. In 1972, that Commission created an Appeal Panel, from which were drawn the Appeal Boards assigned to each licensing proceeding. The functions performed by both Appeal Boards and Licensing Boards were transferred from the AEC to the Nuclear Regulatory Commission by the Energy Reorganization Act of 1974. Appeal Boards represented the final level in the administrative adjudicatory process to which parties could appeal. Parties, however, were permitted to seek discretionary Commission review of certain board rulings. The Commission also could decide to review, on its own motion, various decisions or actions of Appeal Boards.

On June 29, 1990, however, the Commission voted to abolish the Atomic Safety and Licensing Appeal Panel, and the Panel ceased to exist as of June 30, 1991. Since then, the Commission itself reviews Licensing Board and other adjudicatory decisions, as a matter of discretion. *See* 56 Fed. 29 & 403 (1991).

The Commission also has Administrative Law Judges appointed pursuant to the Administrative Procedure Act, who preside over proceedings as directed by the Commission.

The hardbound edition of the Nuclear Regulatory Commission Issuances is a final compilation of the monthly issuances. It includes all of the legal precedents for the agency within a six-month period. Any opinions, decisions, denials, memoranda and orders of the Commission inadvertently omitted from the monthly softbounds and any corrections submitted by the NRC legal staff to the printed softbound issuances are contained in the hardbound edition. Cross references in the text and indexes are to the NRCI page numbers which are the same as the page numbers in this publication.

Issuances are referred to as follows: Commission—CLI, Atomic Safety and Licensing Boards—LBP, Administrative Law Judges—ALJ, Directors' Decisions—DD, and Decisions on Petitions for Rulemaking—DPRM.

The summaries and headnotes preceding the opinions reported herein are not to be deemed a part of those opinions or to have any independent legal significance.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 40-8968-ML

HYDRO RESOURCES, INC.
(P.O. Box 777, Crownpoint,
New Mexico 87313)

January 11, 2006

In Phase II of this materials license proceeding, the Commission denies review of an Atomic Safety and Licensing Board decision on groundwater protection, groundwater restoration, and surety estimates.

RULES OF PRACTICE: APPELLATE REVIEW

Where a Presiding Officer has reviewed an extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed.

RULES OF PRACTICE: HEARING RIGHTS

Post-hearing resolution of licensing issues must not be employed to obviate the basic findings prerequisite to a license, including a reasonable assurance that the facility can be operated without endangering the health and safety of the public.

RULES OF PRACTICE: HEARING RIGHTS

Verification by the NRC Staff that a licensee complies with preapproved design or testing criteria is a highly technical inquiry not particularly suitable for hearing.

MEMORANDUM AND ORDER

In this decision, we consider a petition for review filed jointly by Intervenor Eastern Navajo Diné Against Uranium Mining (ENDAUM), Southwest Research and Information Center (SRIC), Grace Sam, and Marilyn Morris. The Intervenor seeks review of LBP-05-17,¹ the Presiding Officer's Partial Initial Decision, in Phase II of this proceeding,² on groundwater protection, groundwater restoration, and surety estimates. Licensee Hydro Resources, Inc. (HRI) and the NRC Staff oppose the petition for review. After careful consideration of the Intervenor's petition, the responses, the Presiding Officer's decision, and cited portions of the record, we deny review of LBP-05-17.

The Presiding Officer's detailed decision in LBP-05-17 rests upon his analysis of extensive fact-specific arguments presented by the parties' technical experts. As we have said earlier in this proceeding, where a "Presiding Officer has reviewed [an] extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed."³ While we certainly have discretion to undertake a *de novo* factual review, we "generally do not exercise that authority where a Licensing Board has issued a plausible decision that rests on carefully rendered findings of fact."⁴ We carefully have considered the Intervenor's challenges to LBP-05-17. We find, however, that the Intervenor

¹ 62 NRC 77 (2005).

² The Hydro Resources, Inc. (HRI) license authorizes HRI to conduct *in situ* leach (ISL) uranium mining at four sites in McKinley County, New Mexico: Church Rock Section 8, Church Rock Section 17, Unit 1, and Crownpoint. Phase I of the proceeding focused on Section 8. Phase II involves Intervenor challenges to HRI's license relating to mining in the Church Rock Section 17, Unit 1, and Crownpoint sites.

³ CLI-00-12, 52 NRC 1, 3 (2000), citing CLI-99-22, 50 NRC 3, 6 (1999); see also *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 723 (2005).

⁴ See *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-26 (2003).

have not identified any “clearly erroneous” factual finding or significant legal error, or any other reason warranting plenary review.⁵

I. HEARING RIGHTS

The Intervenor argues that the Presiding Officer erred when he approved four license conditions that will allow particular determinations to be made post-licensing. These license conditions require HRI, prior to injecting lixiviant into a well field, to (1) establish the baseline groundwater quality (the average well-field concentration existing prior to mining operations) for specified groundwater quality parameters (LC 10.21);⁶ (2) establish the upper control limits for three specified groundwater quality parameters (LC 10.22);⁷ (3) conduct groundwater pump tests to assure that aquitards⁸ provide adequate containment layers for the Westwater Canyon Aquifer at Section 17, Unit 1, and Crownpoint (LC 10.23);⁹ and (4) test for fractures that could serve as conduits for groundwater contamination (LC 10.31).

⁵ See 10 C.F.R. § 2.786(b)(4) (2004). The NRC has amended its adjudicatory procedural rules in 10 C.F.R. Part 2. See Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182 (Jan. 14, 2004). For cases such as this one, docketed prior to February 13, 2004, the previous procedural rules, including the former 10 C.F.R. § 2.786, continue to apply. A substantially equivalent new rule now appears in 10 C.F.R. § 2.341(b)(4) (2005).

⁶ The primary groundwater restoration goal is to return all groundwater quality parameters to the baseline level. If the baseline levels cannot be achieved, the secondary restoration goal is to return the groundwater quality to the maximum concentration levels as specified in the Environmental Protection Agency’s secondary and primary drinking water regulations or, for certain parameters, to New Mexico standards. See LBP-05-17, 62 NRC at 89 (referencing LC 10.21).

⁷ During mining operations, HRI will need to monitor three groundwater parameters (chloride, bicarbonate, and electrical conductivity) at a ring of monitor wells at prescribed locations outside the mine field, to ensure that the parameter concentrations remain below established upper control limits. Upper control limits are derived from groundwater baseline quality by taking the established groundwater baseline mean for a parameter (after outliers have been eliminated), and then adding five standard deviations. See LBP-05-17, 62 NRC at 93 n.8; LC 10.22.

⁸ An aquitard is a geologic unit exhibiting characteristics that generally retard the flow of groundwater (e.g., shales, clay, etc.).

⁹ Groundwater pump tests involve pumping a well in an aquifer and then monitoring water levels in observation wells located within the aquifer and in overlying and underlying water-bearing units. See HRI Consolidated Operations Plan §§ 8.5, 8.5.1, 8.5.2. If the groundwater levels in the overlying and underlying water-bearing units do not change during the pump tests, the water-bearing units are likely separated from the aquifer by confining layers (i.e., aquitards, or geologic formations that retard the flow of groundwater).

The Intervenors argue that these license conditions violate their statutory rights, under the Atomic Energy Act, to a hearing on issues material to licensing.¹⁰ More specifically, they claim that these license conditions “leave room for the exercise of judgment or discretion by HRI in establishing baseline groundwater quality, UCLs [upper control limits], and whether the Westwater [aquifer] is vertically confined and free of fractures.”¹¹ They claim a right to an adjudicatory hearing on future determinations that may be made under these license conditions.

The Intervenors are correct that “[p]ost-hearing resolution [of licensing issues] must not be [employed] to obviate the basic findings prerequisite to a license, including a reasonable assurance that the facility can be operated without endangering the health and safety of the public.”¹² But here the basic findings on groundwater protection necessary for a licensing decision have been made. The Presiding Officer in LBP-05-17 found reasonable assurance that groundwater at the Section 17, Unit 1, and Crownpoint sites will be adequately protected. He reviewed extensive data submitted by HRI and the NRC Staff, including preliminary pump test data, and data from HRI’s exploration drill holes and geophysical logs, as well as Intervenor arguments challenging those data. Based upon information in the record, he concluded that the Westwater Aquifer is confined at the Section 17, Unit 1, and Crownpoint sites, and that drinking water supplies will be adequately protected.¹³ Prior to injecting lixiviant at a mine site, HRI must conduct pump testing to “confirm” that the Westwater Aquifer indeed is contained at the mining sites.¹⁴ These tests are “part of a multifaceted and ongoing [regulatory] process,” for assuring groundwater protection.¹⁵

The Intervenors argue that the license conditions at issue permit excessive licensee discretion, which could lead, for example, to artificially inflated groundwater quality baselines or improperly conducted pump tests. But we find no clear error in the Presiding Officer’s conclusions that the challenged license conditions, together with their procedural protocols, outlined in HRI’s Consolidated Operations Plan (COP), “provide a highly detailed, prescriptive methodology for establishing groundwater baselines and UCLs [upper control limits],” and

¹⁰ Atomic Energy Act § 189, 42 U.S.C. § 2239. See generally *Union of Concerned Scientists v. Nuclear Regulatory Commission*, 735 F.2d 1437 (D.C. Cir. 1984), cert. denied, 469 U.S. 1132 (1985).

¹¹ Intervenors’ Petition for Review of LBP-05-17 (Aug. 9, 2005) at 5.

¹² See Intervenors’ Petition at 3 (citing *Consolidated Edison Co. of New York* (Indian Point, Unit 2), CLI-74-23, 7 AEC 947, 951-52 (1974)).

¹³ See, e.g., 62 NRC at 121 (“contrary to the Intervenors’ assertion, the likelihood of vertical excursions of lixiviant . . . at Section 17 is remote”); see also *id.* at 123 (“adequate record evidence supports the conclusion that the Westwater Aquifer is vertically confined at Unit 1”); *id.* at 124 (“HRI has demonstrated that drinking water supplies will be adequately protected from mining contaminants at Crownpoint”).

¹⁴ See *id.* at 121, 124; see also generally *id.* at 106-09, 115-25.

¹⁵ See *id.* at 100; see also *id.* at 101-02.

likewise a “highly detailed and prescriptive methodology for establishing the hydrological properties of the mine sites.”¹⁶ As the Presiding Officer stressed, “the Intervenor have had a full opportunity — both here and in the prior Section 8 proceeding — to identify flaws, omissions, or irregularities in these procedures [in the license conditions and COP]” that could erroneously affect groundwater baselines, upper control limits, or the pump or fracture testing, such that public health or safety could be affected.¹⁷ The Presiding Officer rejected the Intervenor’s arguments on the adequacy of the procedures. We find no reason to revisit his conclusion that “the methodology for making these determinations [under the license conditions] is sufficiently detailed and prescriptive so that, assuming HRI complies with that methodology,” there is “‘reasonable assurance’ that these determinations will not endanger public health and safety.”¹⁸

Given the prescriptive nature of the license conditions and their applicable procedures or methodologies, and the hearing opportunity accorded to the Intervenor to challenge the adequacy of those procedures, we find reasonable the Presiding Officer’s conclusion that the Intervenor’s hearing rights are not violated by these license conditions. Further, as the Presiding Officer stated, “verification by the NRC Staff that a licensee complies with preapproved design or testing criteria ‘is a highly technical inquiry not particularly suitable for hearing.’”¹⁹ We note, additionally, that the HRI license is a performance-based license, and that in this proceeding the Intervenor also have had the opportunity to litigate — and did litigate — whether the performance-based licensing complies with the Atomic Energy Act and National Environmental Policy Act (NEPA), and whether it accords undue discretion to the Licensee.²⁰

The Intervenor fear that HRI might not “adhere[] to the methodology in its license or the COP [Consolidated Operations Plan].”²¹ But as the Presiding Officer found, “[t]his argument, if accepted, would . . . transmogrify license proceedings into open-ended enforcement actions: that is, licensing boards would be required to keep license proceedings open for the entire life of the license so intervenors would have a continuing, unrestricted opportunity to raise charges of noncompliance.”²² In LBP-05-17, the Presiding Officer described how compliance with the license conditions will be subject to the NRC’s continuing regulatory

¹⁶ *Id.* at 93, 99.

¹⁷ *See id.* at 93-94, 99.

¹⁸ *See id.* at 94 n.11.

¹⁹ *Id.* at 94 n.11 (quoting *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 20 & n.25 (2003)).

²⁰ *See* CLI-99-22, 50 NRC 3, 15-18 (1999).

²¹ Intervenor’s Petition at 6.

²² 62 NRC at 94.

oversight and authority.²³ If the Intervenors have any cause to believe that HRI is not adequately following the outlined procedures, they can petition the NRC Staff for appropriate enforcement action.²⁴

Waiting until after licensing (although before mining operations begin) to establish definitively the groundwater quality baselines and upper control limits is, as the Presiding Officer stated, “consistent with industry practice and NRC methodology,” given the sequential development of *in situ* leach well fields.²⁵ The site-specific data to confirm proper baseline quality values, and confirm whether existing rock units provide adequate confinement cannot be collected until an *in situ* leach well field has been installed, a point described by the NRC Staff’s expert.²⁶

The Intervenors have had the opportunity to challenge the adequacy of the groundwater-related information submitted by HRI and the NRC Staff, as well as the methodology of procedures that will be used during the operational stages of mining to assure that groundwater quality remains protected. We find reasonable the Board’s conclusion that the Intervenors’ hearing rights have not been violated.

II. COMPLAINTS OF OVERLOOKED OR “IGNORED” EVIDENCE

The Intervenors’ petition for review also argues that the Presiding Officer ignored factual evidence that they presented. They first argue that the Presiding Officer improperly “applied decisions from the previous litigation on Section 8 to very different factual evidence regarding Section 17, Unit 1, and Crownpoint.”²⁷

The Presiding Officer did find that earlier decisions in this proceeding (regarding Section 8) already had considered and rejected several of the arguments on aquifer hydrogeology and geochemistry that the Intervenors repeated in their groundwater presentation for Section 17, Unit 1, and Crownpoint. He found that the Intervenors had not “distinguish[ed] their current challenges from those that were previously rejected by the Commission.”²⁸ The Presiding Officer noted, for example, that the “hydrogeology of the Westwater Aquifer [was] extensively litigated” in the Section 8 phase of the proceeding, that the Intervenors raised many of the same arguments about the aquifer previously argued, that Section

²³ See, e.g., *id.* at 95, 99.

²⁴ See 10 C.F.R. § 2.206.

²⁵ See 62 NRC at 94 n.11.

²⁶ See, e.g., Affidavit of William von Till (April 29, 2005) at 7 (referencing NUREG-1569, “Standard Review Plan for *In Situ* Leach Uranium Extraction License Applications” (June 2003) at 5-43 (pump tests are done “[o]nce a well field is installed,” and “[s]uch testing will serve to confirm the performance of the monitoring system and will verify the site conceptual model’’)).

²⁷ Intervenors’ Petition at 6.

²⁸ See 62 NRC at 87.

17 was located adjacent to Section 8, and that the Intervenors failed to provide “any persuasive reason” for why several conclusions made in regard to Section 8 would not also apply to Section 17.²⁹

The Intervenors argue that the Presiding Officer ignored site-specific evidence that they presented on geological differences at Section 17. They similarly argue that the Presiding Officer ignored their site-specific evidence on the geochemical environment at Section 17 and Crownpoint. We have examined the technical site-specific arguments alleged by the Intervenors to have been ignored by the Presiding Officer. We find, however, no reason to revisit his conclusions on the relevance of the earlier Section 8 conclusions to the other three mining sites. Moreover, the Presiding Officer made clear that “in any event,” even without considering and applying the earlier Section 8 conclusions, he was unpersuaded by the Intervenors’ groundwater arguments.³⁰

The Intervenors further argue that “where the Presiding Officer considered Intervenors’ evidence and made factual determinations about their contentions, the Presiding Officer ignored critical evidence and arguments,” including “important contradictions” in HRI’s and the staff’s evidence.”³¹ Again, we carefully examined the Intervenors’ claims, but discern no reason to revisit the Presiding Officer’s conclusions. For example, while the Intervenors point specifically to pages 73 to 89 of their groundwater presentation, the Presiding Officer’s decision references those very pages, rejecting Intervenor arguments.³² The Presiding Officer clearly found unpersuasive the Intervenors’ arguments on potential contamination of drinking water supplies. We find no indication that the Presiding Officer failed to address or “ignored” any critical arguments presented by the Intervenors. Nor do we find any other reason to believe his factual determinations clearly erroneous.

²⁹ See *id.* at 116; see also *id.* at 118.

³⁰ See *id.* at 118, 108-09.

³¹ Intervenors’ Petition at 8. As HRI explains, it is not necessarily contradictory or internally inconsistent to conclude that the Westwater, “as a geologic unit, acts homogeneously, despite having some characteristics of heterogeneity.” See HRI Response to Intervenors’ Petition for Review of LBP-05-17 (Aug. 24, 2005) at 9 (emphasis in original).

³² See 62 NRC at 118-25. Another section of the Intervenors’ groundwater presentation argued that HRI’s license violates the Safe Drinking Water Act because if HRI were unable to restore groundwater quality at the Section 17, Unit 1, and Crownpoint sites to the baseline water quality conditions for uranium, the secondary restoration standard for uranium that was specified in the license (0.44 mg/L) exceeded the EPA’s maximum concentration limit (MCL) for uranium, which is 0.03 mg/L. HRI and the NRC Staff agreed that reducing the secondary restoration standard to 0.03 mg/L was appropriate, and accordingly the Presiding Officer directed that HRI’s license be revised to effect that reduction. See *id.* at 92. The Presiding Officer also noted that HRI may not commence ISL mining operations at any site until it obtains, from the appropriate regulatory authorities, an aquifer exemption for the portion of the aquifer where HRI will be mining and an Underground Injection Control permit. See *id.* at 90 (referencing LC 9.14).

III. CONCLUSION

For the reasons given in this decision, we *deny* the Intervenors' petition for review of LBP-05-17.

IT IS SO ORDERED.

For the Commission

ANDREW L. BATES
Acting Secretary of the Commission

Dated at Rockville, Maryland,
this 11th day of January 2006.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

**Docket Nos. 50-334-LT
50-346-LT
50-412-LT
50-440-LT**

**FIRSTENERGY NUCLEAR
OPERATING COMPANY
(Beaver Valley Power Station, Units 1
and 2; Davis-Besse Nuclear Power
Station, Unit 1; Perry Nuclear
Power Plant, Unit 1)**

January 31, 2006

RULES OF PRACTICE: INTERVENTION (STANDING)

To qualify for intervenor status, a petitioner must, among other things, demonstrate standing. 10 C.F.R. § 2.309(d). As part of that demonstration, we require a showing that the petitioner “has suffered [or will suffer] a distinct and palpable harm that constitutes injury-in-fact within the zone of interests arguably protected by the governing statute [and that this] injury can fairly be traced to the challenged action” (here, the approval of the license transfer). *See, e.g., Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996).

DEFINITIONS (“TRANSMISSION SERVICES”)

“Transmission services” is a concept central to our determination of standing in this proceeding; it refers to the transport of electricity on the wholesale market

to local distribution companies. By contrast, the term “distribution” refers generally to the transport of electricity by local distribution companies to the end users of the electricity (e.g., homes, shops, office buildings, factories). *See generally Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-452, 6 NRC 892, 973-74 & n.352 (1977).

DEFINITIONS (“COORDINATION SERVICES”)

“[T]he coordination services market is a market for the exchange of surplus electric power between utilities on a nonfirm basis and the joint and coordinated operation by utilities of their systems of generation and distribution, all with the purpose of achieving maximum efficiency and economies in their overall power supply operations.” *Toledo Edison Co.*, (Davis-Besse Nuclear Power Station, Units 1, 2, and 3), ALAB-560, 10 NRC 265, 301 (1979) (opinion of Mr. Sharfman). *See also Midland*, ALAB-452, 6 NRC at 902-03 (citations and footnotes omitted):

“Coordination” refers to the electric power utilities’ practice of interchanging power and sharing responsibility for building new generating facilities to achieve economic benefits unattainable by an individual utility acting alone. The practice encompasses both “operational coordination,” which is the unified control of generation and transmission facilities, and the sharing of one or more of reserve, emergency, maintenance, economy, dump, seasonal and time diversity power or energy, and “developmental coordination,” which includes the cooperative planning of new facilities to allow their construction as joint ventures or on staggered time schedules.

As these definitions indicate, the vast majority of coordination services involve the supply of power rather than its transmission.

RULES OF PRACTICE: INTERVENTION (STANDING)

A statement purporting to show a real potential for injury sufficient for standing will be rejected if it is too vague and general. *See, e.g., GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 203 (2000). *See also Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 337 (2002).

RULES OF PRACTICE: MOTIONS

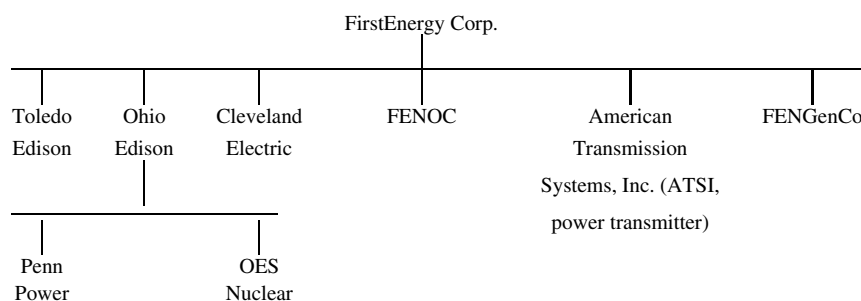
Our rules require that motions be filed no more than 10 days after “the occurrence or circumstance from which the motion arises.” 10 C.F.R. § 2.323(a).

MEMORANDUM AND ORDER

FirstEnergy Corporation (FirstEnergy) is the parent of the owners and of the operator of the Perry, Davis-Besse, and Beaver Valley nuclear facilities and is currently engaged in a corporate reorganization of its electric generation assets. To facilitate that reorganization, FirstEnergy's subsidiary FirstEnergy Nuclear Operating Company (FENOC) has filed two license transfer applications on behalf of another of FirstEnergy's subsidiaries — FirstEnergy Nuclear Generation Corporation (FENGenCo) — as well as the facilities' five current "operating companies" (also owned by FirstEnergy), viz., Ohio Edison Company (Ohio Edison), Pennsylvania Power Company (Penn Power), Toledo Edison Company (Toledo Edison), Cleveland Electric Illuminating Company (Cleveland Electric), and OES Nuclear, Inc. (OES Nuclear).¹ Assuming the reorganization is completed as planned, FENGenCo will hold all of FirstEnergy's nuclear generation assets, with the exception of a partial leased interest in the Perry facility retained by Ohio Edison² and partial leased interests in Beaver Valley-2 retained by Ohio Edison and Toledo Edison.

American Municipal Power-Ohio, Inc. (AMP-Ohio) and the City of Cleveland, Ohio (City of Cleveland) have petitioned to intervene but have not sought a hearing.³ The Petitioners do not oppose the license transfers in their entirety, but

¹ See Applications for Order Consenting to Transfer of Licenses and Approving Conforming License Amendments, dated May 18 and June 1, 2005, as supplemented by letter from Gary R. Leidich, President and Chief Nuclear Officer, FENOC, to the Commission, dated July 15, 2005. The pleadings and applications indicate the following post-reorganization corporate interrelationship of these companies (as well as another company relevant to this proceeding):



² FENOC[']s] Answer to Petitions To Intervene by AMP-Ohio and Cleveland, dated Sept. 15, 2005, at 8 n.22, 11, 18, 22.

³ Petition for Leave To Intervene of American Municipal Power-Ohio, Inc., dated Aug. 22, 2005; Petition for Leave To Intervene of the City of Cleveland, Ohio, dated Aug. 22, 2005. The petitions are largely identical so, for brevity, we will generally cite to only AMP-Ohio's petition.

they do request (as their primary form of relief) that we condition our approval of those transfers “on a commitment by FirstEnergy to preserve the *status quo* [of the licenses’ antitrust conditions⁴] by honoring the conditions through each of the [o]perating [c]ompanies and [FirstEnergy’s] other subsidiaries.”⁵ According to the Petitioners, they could thereby enforce those conditions against FirstEnergy and its subsidiaries and affiliates, regardless of which (if any) of those entities were to continue holding operating licenses and owning nuclear generation assets.⁶

FENOC filed an Answer opposing the petitions to intervene. Neither Petitioner filed a reply brief.⁷ As is usual in our license transfer cases, the NRC Staff is not a party.⁸

We find that the Petitioners have failed to provide sufficient support for their claim of potential injury and that they consequently lack standing to intervene. We therefore deny their petitions and terminate this proceeding. Because the NRC Staff has already issued its own order approving the instant license transfers (subject, of course, to our rulings in this adjudication),⁹ FENOC requires no

⁴ “These conditions prohibit[] Licensees from making the sale of wholesale power or the coordination of services contingent upon agreements to allocate customers, forgo alternative power supplies, or refrain from participating in Commission antitrust proceedings. The conditions also require[] Licensees to connect their transmission lines with those of their competitors; wheel power for competitors; open up membership in [a regional power pool named Central Area Power Coordinating Group, or] CAPCO to competitors in the CAPCO territory; sell various types of power to competitors on the same terms offered to CAPCO members; share power reserves with interconnected facilities that generate their own power; and give competitors access to power generated by Licensees’ nuclear plants.” *City of Cleveland v. NRC*, 68 F.3d 1361, 1364-65 (D.C. Cir. 1995), summarizing *Toledo Edison Co.* (Davis-Besse Nuclear Power Station, Units 1, 2, and 3), ALAB-560, 10 NRC 265, 296-99 (1979). *See also* 68 F.3d at 1368-69 (same). The original companies to whom the antitrust conditions were directed in 1979 were Ohio Edison, Penn Power, Toledo Edison, Cleveland Electric, and Duquesne Light Company (which transferred its interests in the subject plants well prior to this proceeding). *See Davis-Besse*, ALAB-560, 10 NRC at 273. At the time, FirstEnergy, FENOC, FENGenCo, and ATSI did not yet exist.

⁵ AMP-Ohio’s Petition To Intervene at 3-4. *See also id.* at 15.

⁶ *Id.* at 7, 16. Alternatively, the Petitioners ask the Commission to reject the proposed license transfers outright if the Commission cannot, for any reason, ensure that “the antitrust conditions remain viable as to FirstEnergy and all of its subsidiaries and affiliates.” *Id.* at 8.

⁷ 10 C.F.R. § 2.309(h)(2) (permitting reply briefs).

⁸ *See* 10 C.F.R. § 2.1316; *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 201 (2000).

⁹ The Staff’s order approved conforming license amendments as proposed in the applications, under which entities that would no longer be licensees are deleted from the licenses. We note that the Staff’s action in this regard is not inconsistent with our decision in *Kansas Gas and Electric Co.* (Wolf Creek Generating Station, Unit 1), CLI-99-19, 49 NRC 441 (1999), and in particular the suggestions therein regarding the appropriate fate or disposition of existing antitrust license conditions during a license transfer (*see id.* at 466).

further license transfer authorization from this agency regarding the FirstEnergy corporate family's reorganization.

A. The Proposed License Transfers

The relevant portions of the May 18th application (as supplemented) seek authorization to transfer Penn Power's ownership interest in the Beaver Valley and Perry facilities to FENGenCo, and also seek approval of conforming amendments to those facilities' operating licenses. The relevant portions of the June 1st application (as supplemented) seek authorization to transfer to FENGenCo the ownership interests of Ohio Edison, Toledo Edison, Cleveland Electric, and OES Nuclear, Inc., in the Beaver Valley, Perry, and Davis-Besse facilities, and likewise seeks approval of conforming amendments to those facilities' operating licenses.

FENOC states in both of its applications that "[t]he existing antitrust conditions in the licenses will continue in effect."¹⁰ Under the license transfer applications, only FENGenCo, Ohio Edison, and FENOC would be bound by the Perry operating license's antitrust conditions; only FENGenCo and FENOC would be bound by the antitrust conditions in the Davis-Besse operating license; and the Beaver Valley operating licenses would continue to contain no antitrust provisions.

FENOC requests the transfers because the State of Ohio has required FirstEnergy "to establish a structural separation between the competitive generation portion of [its] electric business and the regulated "wires" [i.e., transmission] portion of this business."¹¹

B. Petitions To Intervene

To qualify for intervenor status, a petitioner must, among other things, demonstrate standing.¹² As part of that demonstration, we require a showing that the petitioner "has suffered [or will suffer] a distinct and palpable harm that constitutes injury-in-fact within the zone of interests arguably protected by the governing

¹⁰ May 18th Application at 15; June 1st Application at 19.

¹¹ June 1st Application at 8. Ohio's requirement applies not only to the Ohio subsidiaries but also to Penn Power, because it operates with Ohio Edison as a single system in both Pennsylvania and Ohio. See *Ohio Edison Co.*, 80 FERC ¶¶ 61,039, 61,094 (1997), 1997 WL 564505 (Federal Energy Regulatory Commission (FERC)), *reh'g denied*, 81 FERC ¶ 61,109 (1997), 1997 WL 805924 (FERC), *reh'g denied*, 85 FERC ¶ 61,203 (1998), 1998 WL 785782 (FERC) ("Ohio Edison operates and dispatches itself and Penn Power (jointly, Ohio Edison Companies) as a single system [which] . . . provides retail electric service to . . . customers in . . . central and northeastern Ohio and western Pennsylvania").

¹² 10 C.F.R. § 2.309(d).

statute [and that this] injury can fairly be traced to the challenged action’’ (here, the approval of the license transfer).¹³

AMP-Ohio is an organization comprising 109 municipalities in Ohio, Pennsylvania, West Virginia, and Michigan — all of which own or operate utility systems and some of which also operate electric generation and transmission facilities.¹⁴ AMP-Ohio claims that it and its members both purchase power from FirstEnergy¹⁵ and use the transmission services of FirstEnergy’s wholly owned subsidiary, American Transmission Systems, Inc. (ATSI).¹⁶ Although FirstEnergy is only one of several companies with which AMP-Ohio and its members have contracted for transmission services,¹⁷ AMP-Ohio asserts that ATSI delivers *all* the electricity purchased by those of its members located within FirstEnergy’s control area.¹⁸

The City of Cleveland owns and operates Cleveland Public Power, a municipal electric distribution system that provides retail electric service in and around Cleveland. It claims that *all* the electric power it purchases is delivered over ATSI’s transmission lines. For the same reasons as pressed by AMP-Ohio, the City of Cleveland asserts that changes in entities governed by the antitrust conditions could adversely affect it.¹⁹ The City of Cleveland also explains that the antitrust conditions provide municipal utilities such as Cleveland Public Power with significant rights regarding generation, transmission, and distribution services, that those conditions were imposed on Cleveland Electric to remedy its past anticompetitive conduct against the City of Cleveland, and that they continue to protect against similar conduct by FirstEnergy’s operating companies.²⁰

¹³ See, e.g., *Yankee Atomic Electric Co. (Yankee Nuclear Power Station)*, CLI-96-1, 43 NRC 1, 6 (1996).

¹⁴ AMP-Ohio’s Petition To Intervene at 4-5.

¹⁵ Because FirstEnergy is itself a holding company rather than an electric generation company, we assume that AMP-Ohio is referring here to its power purchase agreements with some of FirstEnergy’s subsidiary utilities.

¹⁶ *Id.* at 7. “Transmission services” is a concept central to our determination of standing in this proceeding; it refers to the transport of electricity on the wholesale market to local distribution companies. By contrast, the term “distribution” refers generally to the transport of electricity by local distribution companies to the end users of the electricity (e.g., homes, shops, office buildings, factories). See generally *Consumers Power Co. (Midland Plant, Units 1 and 2)*, ALAB-452, 6 NRC 892, 973-74 & n.352 (1977).

¹⁷ Because FirstEnergy is not a transmission company, we assume that AMP-Ohio is referring here to ATSI, FirstEnergy’s subsidiary transmission company.

¹⁸ AMP-Ohio’s Petition To Intervene at 5. “[A] control area is a geographic area within which a single entity, such as FirstEnergy, balances generation and load in real time in order to maintain reliable operations.” *Ohio Edison Co.*, 105 FERC ¶61,372, 62,655 n.3 (2003), 2003 WL 23011904 (FERC) (citation omitted).

¹⁹ City of Cleveland’s Petition To Intervene at 4-5.

²⁰ *Id.* at 7.

At bottom, AMP-Ohio and the City of Cleveland argue that they could suffer injury from an inability to seek enforcement of the NRC antitrust conditions against any or all of the operating companies if those companies were to violate any of those conditions. Both Petitioners assert that FENOC's attempt to transfer all antitrust compliance responsibility from the operating companies to FENGenCo constitutes a substantial modification to the antitrust conditions' scope and effectiveness (though not to their literal terms) by "significantly undercut[ting] the vitality of those conditions for their beneficiaries . . . that compete with and receive transmission service from FirstEnergy."²¹

More specifically, the Petitioners argue that the antitrust conditions provide protection for small municipal electrical systems that both compete with FirstEnergy and its operating companies for generation and transmission services and are simultaneously dependent upon those same companies' transmission systems in order to transport energy to the municipals' systems for delivery to their customers.²² AMP-Ohio asserts that its members purchase transmission services from FirstEnergy (among other common carriers), and that all of the power those members purchase in FirstEnergy's control area must ultimately be delivered by FirstEnergy subsidiary ATSI.²³ Similarly, the City of Cleveland asserts that all its power "is delivered . . . over ATSI transmission lines pursuant to the Midwest ISO Tariff."²⁴

The Petitioners accuse FirstEnergy of attempting to undermine those protections *sub rosa* under the guise of a corporate restructuring. According to the Petitioners, the effect of this restructuring would be that the antitrust conditions would remain in the licenses and would apply to FENGenCo, but that FENGenCo has no ability either to comply or to force other FirstEnergy companies to comply with those conditions. Conversely, the conditions would no longer be enforceable against the operating companies (i.e., Ohio Edison, Toledo Edison, Cleveland Electric, and Penn Power) who *are* capable of complying, because they would no longer be NRC licensees. Thus, the Petitioners reason, the antitrust conditions would be *de facto* unenforceable, and this unenforceability constitutes an injury for purposes of standing. The Petitioners say that their fears in this regard are exacerbated by FENOC's repeated refusal, at least in this proceeding, to provide assurances that all members of the FirstEnergy corporate family will be bound by the NRC licenses' antitrust conditions.²⁵

²¹ AMP-Ohio's Petition To Intervene at 7. *See also* City of Cleveland's Petition To Intervene at 7 (incorporating AMP-Ohio's arguments by reference).

²² AMP-Ohio's Petition To Intervene at 8-9.

²³ *Id.* at 5.

²⁴ City of Cleveland's Petition To Intervene at 5.

²⁵ AMP-Ohio's Petition To Intervene at 9-12.

C. Analysis

We cannot accept the Petitioners' characterization of the license transfers as precluding enforcement action against *all* FirstEnergy affiliates (each of whom is capable of complying with only certain provisions of the antitrust conditions, depending on the nature of the affiliate's business). As already noted, Ohio Edison will retain a partial interest in the Perry facility and will therefore remain subject to the antitrust conditions in that license. Also, FENGenCo would be subject to those same conditions and, as a generation entity, would be able to address requirements in the conditions concerning the sale or exchange of wholesale power, and the sale of maintenance power, emergency power, economy energy,²⁶ and coordination services.²⁷

Nor do we accept the Petitioners' "potential injury" argument. Each Petitioner claims that the unenforceability of the antitrust conditions will adversely affect its "important rights relating to generation, transmission, and distribution" services.²⁸ Yet neither Petitioner explains how its distribution and generation rights would be adversely affected. As close as either Petitioner comes is AMP-Ohio's highly general comment that it and its members "compete with FirstEnergy and the Operating Companies for generation . . . services"²⁹ — a statement too vague and general to show a real potential for injury sufficient for standing.³⁰

²⁶ License Conditions (1), (5), (6), (7), (10), and (11) for both Perry and Davis-Besse.

²⁷ License Conditions (1) and (11) for both Perry and Davis-Besse. "[T]he coordination services market is a market for the exchange of surplus electric power between utilities on a nonfirm basis and the joint and coordinated operation by utilities of their systems of generation and distribution, all with the purpose of achieving maximum efficiency and economies in their overall power supply operations." *Davis-Besse*, ALAB-560, 10 NRC at 301 (opinion of Mr. Sharfman). *See also Midland*, ALAB-452, 6 NRC at 902-03 (citations and footnotes omitted):

"Coordination" refers to the electric power utilities' practice of interchanging power and sharing responsibility for building new generating facilities to achieve economic benefits unattainable by an individual utility acting alone. The practice encompasses both "operational coordination," which is the unified control of generation and transmission facilities, and the sharing of one or more of reserve, emergency, maintenance, economy, dump, seasonal and time diversity power or energy, and "developmental coordination," which includes the cooperative planning of new facilities to allow their construction as joint ventures or on staggered time schedules.

As these definitions indicate, the vast majority of coordination services involve the supply of power rather than its transmission. In any event, coordination services for transmission are now handled by independent regional transmission organizations called ISOs rather than via the coordination services provisions of the 1979 antitrust conditions.

²⁸ AMP-Ohio's Petition To Intervene at 7; City of Cleveland's Petition To Intervene at 7.

²⁹ AMP-Ohio's Petition To Intervene at 9.

³⁰ *See, e.g., Oyster Creek*, CLI-00-6, 51 NRC at 203. *See also Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 337 (2002) (criticizing intervenor for filing a "cursory" argument on standing).

Therefore, the only remaining potential source of injury we need to consider is the transmission rights. Indeed, this is the Petitioners' only claim of injury that even approaches the required level of specificity:

[A]ll of the power purchased by or for members in the FirstEnergy control area must ultimately be delivered by . . . ATSI. . . . Therefore, the antitrust conditions have the potential to affect AMP-Ohio and its members.³¹

[AMP-Ohio's members] compete with FirstEnergy and the Operating Companies for generation and transmission services and are, at the same time, dependent upon access to the First Energy transmission system for the transmission of energy to their systems for delivery to their customers.³²

But even as to their transmission rights, the Petitioners fail to demonstrate how the license transfers would have any bearing on the Petitioners' current ability to seek enforcement action regarding transmission under the existing antitrust license conditions. The current Licensees transferred their transmission facilities to ATSI (FirstEnergy's subsidiary transmission company) years ago, before the applications here were filed. Thus, long before the current restructuring and the resulting license transfers, the operating companies had no capability to fulfill the conditions' wheeling provisions. The license transfers at issue here would not change this fact. Furthermore, on October 1, 2003, ATSI turned over functional control of its transmission facilities to Midwest ISO,³³ and this latter organization's FERC-approved "Open Access Transmission Tariff" *guarantees* the petitioners nondiscriminatory open access to transmission facilities, interconnections and energy markets.³⁴ FENOC in its Answer directs our attention to these facts

³¹ AMP-Ohio's Petition To Intervene at 5.

³² *Id.* at 9.

³³ *See, e.g., Midwest Independent Transmission System Operator, Inc.*, 113 FERC ¶ 61,096 (2005), 2005 WL 2775657 at *1, *3 n.7 (FERC).

³⁴ FENOC's Answer at 21. *See generally Midwest Independent Transmission System Operator, Inc.*, 111 FERC ¶ 63,028 (2005), 2005 WL 1031398 (FERC) (ALJ order referring uncontested settlement to the Commission); *Troy Energy, LLC*, 107 FERC ¶ 63,018, at 65,090 (2004), 2004 WL 868596 (FERC) (ALJ order referring uncontested settlement to the Commission), *settlement approved*, 107 FERC ¶ 61,226 (2004), 2004 WL 1201421 (FERC). The FERC's open access scheme derives from its transmission-deregulation rulemaking that was affirmed by the United States Court of Appeals for the District of Columbia Circuit and, ultimately, the United States Supreme Court. *See* FERC Order No. 888, "Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities," 61 Fed. Reg. 21,540 (May 10, 1996), FERC Stats. & Regs., Regulations Preambles (January 1991–June 1996) ¶ 31,036 (1996), 1996 WL 239663 (F.R.), *order on reh'g*, Order No. 888-A, 62 Fed. Reg. 12,274 (Mar. 14, 1997), FERC Stats. & Regs., Regulations Preambles (July 1996–December 2000) ¶ 31,048 (1997), 1997 WL 111594 (F.R.), *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248

(Continued)

regarding the role of the ISO,³⁵ and the Petitioners' failure to submit a reply brief has left them unchallenged.

In sum, we find no risk of injury to the Petitioners traceable to the approval of these two license transfers. Absent injury, we find that the Petitioners lack standing. And as they lack standing, we deny their petitions to intervene and terminate this adjudicatory proceeding.

IT IS SO ORDERED.³⁶

For the Commission

ANDREW L. BATES for
ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 31st day of January 2006.

(1997), 1997 WL 833250 (FERC), *order on reh'g*, Order No. 888-C, 82 FERC ¶61,046 (1998), 1998 WL 18148 (FERC), *aff'd in relevant part, Transmission Access Policy Study Group. v. Federal Energy Regulatory Commission*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

³⁵ FENOC's Answer at 21.

³⁶ Petitioners recently filed a "Request for Clarification" regarding the NRC Staff's already-issued approval of the license transfer. The Staff issued its approval order on November 15, 2005, and revised it on December 16, 2005. But Petitioners did not file their "Request for Clarification" until January 9, 2006 — nearly 9 weeks after the initial order's issuance and more than 3 weeks after the revised order's issuance. The "Request" — which we treat as a motion — is inexcusably late. Our rules require that motions be filed no more than 10 days after "the occurrence or circumstance from which the motion arises." 10 C.F.R. § 2.323(a). Petitioners show no good cause for waiting so long to file their "Request." In any event, the "Request" raises the same arguments as the petition to intervene, and we therefore see in it no reason to alter the views we express in today's decision.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko¹
Peter B. Lyons

In the Matter of

Docket No. 72-22-ISFSI

PRIVATE FUEL STORAGE, L.L.C.
(Independent Spent Fuel Storage
Installation)

January 31, 2006

RULES OF PRACTICE: REOPENING OF PROCEEDINGS

Commission jurisdiction to reopen a proceeding continues until a license is actually issued. Until then, “there remains in existence an operating license ‘proceeding’” that can be “reopened.” See *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-1, 35 NRC 1, 6 n.5 (1992). The possibility of reopening an adjudicatory record terminates when the license is issued. Until that point in time, the Commission still has authority to add license conditions or to supplement an environmental impact statement (EIS) if intervenors or the NRC Staff uncover significant, previously unconsidered, and newly arising safety concerns or environmental effects.

NEPA: FEDERAL ACTION

For NEPA purposes, the “major federal action” triggering the Environmental Impact Statement (EIS) is issuing the license, not adjudicating the license.

¹ Because this decision necessarily discusses matters relating to the Yucca Mountain High-Level Waste Repository, Commissioner Jaczko has recused himself from participation.

RULES OF PRACTICE: REOPENING OF PROCEEDINGS

When the record of a proceeding has long been closed, the burden on a party seeking to reopen the record is significant. The Commission need not reopen adjudicatory proceedings simply on a claim of new evidence. Of necessity there will be a gap in time between the closing of the record and the rendering of a decision. The hearing process would never end if the parties could demand the record be reopened any time new or additional evidence is found. *See Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 554-55 (1978) (internal quotation omitted). *See also Northern Lines Merger Cases*, 396 U.S. 491, 521 (1970).

NEPA: ENVIRONMENTAL IMPACT STATEMENT (NEED TO SUPPLEMENT)

A supplemental EIS is needed where new information “raises new concerns of sufficient gravity such that another, formal in-depth look at the environmental consequences of the proposed action is necessary.” *Wisconsin v. Weinberger*, 745 F.2d 412, 418 (7th Cir. 1984). *See Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989). The new information must raise significant environmental impacts that may affect the overall view of the project’s impacts. *National Committee for the New River, Inc. v. Federal Energy Regulatory Commission*, 373 F.3d 1323, 1330 (D.C. Cir. 2004).

NEPA: ENVIRONMENTAL IMPACT STATEMENT (NEED TO SUPPLEMENT)

The Environmental Impact Statement may need to be supplemented when new evidence shows there may be environmental impacts that were not analyzed in the initial EIS. A supplemental EIS is not necessarily required when the new information is mere additional evidence supporting the likelihood of an uncertain environmental impact that was considered in the EIS.

NEPA: ENVIRONMENTAL IMPACT STATEMENT (NEED TO SUPPLEMENT)

New evidence that potentially alters the financial cost-benefit analysis, but which does not show a significant impact on the physical environment, does not warrant supplementing the EIS. While economic benefits are properly considered in an EIS, NEPA does not transform financial costs and benefits into environmental costs and benefits.

MEMORANDUM AND ORDER

In September 2005, we issued what we anticipated to be the final adjudicatory decision in this protracted, 8-year proceeding.² Finding “reasonable assurance” that Private Fuel Storage, L.L.C.’s (PFS) proposed spent fuel storage facility could be “constructed and operated safely,” we authorized the NRC Staff to issue PFS a license to construct and operate its facility.³ For reasons unrelated to the adjudication, the PFS license has not yet issued.

On November 3, 2005, the State of Utah (“Utah”) filed a motion asking us to reopen the adjudicatory record to litigate its proposed Contention Utah UU (Ramifications of DOE’s Refusal To Accept Fuel in Welded Canisters from the PFS Site). Utah also asked us to prohibit PFS from accepting spent fuel at its temporary storage site until it obtains the Department of Energy’s (DOE) agreement that the proposed permanent waste repository at Yucca Mountain will accept fuel stored in the canisters PFS plans to use. Because the new information Utah submits does not raise a significant environmental or safety issue, we deny the motion to reopen.

I. BACKGROUND

Last year we upheld a Licensing Board decision refusing to reopen the record to litigate an earlier version of Contention Utah UU.⁴ We agreed with the Board that Contention UU lacked adequate factual support. Utah’s recent motion seeks to revive Contention UU and argues that “new information” supports its claim that DOE will not accept PFS fuel at the proposed Yucca Mountain repository. The new information is a DOE announcement that it is developing a proposal to use a standard, multipurpose canister design. The multipurpose canister would be loaded at reactor sites and used for transportation and eventual disposal. If ultimately pursued, the new plan would potentially reduce or eliminate the need for DOE to repackage spent fuel at Yucca Mountain, simplifying the process there (and, potentially, the Yucca Mountain licensing proceeding).⁵ This potential alternative strategy could modify DOE’s previous plan to accept high-level waste

² CLI-05-19, 62 NRC 403 (2005).

³ *Id.* at 424.

⁴ CLI-05-12, 61 NRC 345 (2005).

⁵ See DOE, “Yucca Mountain — Program Redirection Fact Sheet” (Oct. 25, 2005) (attached as State of Utah’s Motion To Reopen the Record and To Amend Utah Contention Utah UU (Nov. 3, 2005), Exh. 6).

in a variety of packages at the proposed Yucca Mountain facility, and to transfer the waste to a permanent disposal container at that site.⁶

Utah first raised its concern about storage package incompatibility in 1997, when it filed its original contentions.⁷ Proposed Contention Utah D claimed that PFS's facility was not "designed for decommissioning" because of the "potential incompatibility between the design of PFS storage canisters and the DOE's acceptance criteria for the packaging of spent fuel in a high level nuclear waste repository."⁸ The Board rejected the proposed contention as an impermissible challenge to Commission regulations.⁹

In November of 2004, after the adjudicatory record had closed, Utah raised its concern again, this time in the form of a new (albeit late-filed) NEPA contention, proposed Contention Utah UU, concerning the effect that DOE's refusal to accept prepackaged waste would have on the proposed PFS facility. The contention was based on informal remarks by a DOE official indicating that DOE was contemplating changing its design for the proposed Yucca Mountain facility.

The Board ruled that the evidence that DOE intended to change its previous plan was too thin to warrant reopening the record.¹⁰ Pointing to longstanding NRC regulations and precedent establishing a high threshold for reopening a closed record, the Board held that Utah's new evidence was not so significant that it likely would change the outcome of the proceeding.¹¹ The Commission affirmed, agreeing with the Board that Utah had not met the agency's "strict" reopening burden because the evidence that DOE had changed its longstanding position that it would accept PFS-type stored fuel at Yucca Mountain was not "sufficient."¹²

In its latest motion to reopen, Utah relies on what it believes is new and additional evidence that DOE is reconsidering its plan with respect to waste acceptance at Yucca Mountain. Utah points out that PFS's environmental report and the NRC Staff's subsequent environmental impact statement envisioned that fuel stored at PFS ultimately could be shipped directly to Yucca Mountain without

⁶ See CLI-05-12, 61 NRC at 352-53.

⁷ See State of Utah's Contentions on the Construction and Operating License Application by Private Fuel Storage, LLC for an Independent Spent Fuel Storage Facility, Nov. 23, 1997, at 22-26.

⁸ *Id.* at 23.

⁹ LBP-98-7, 47 NRC 142, 186-87, *reconsideration granted in part and denied in part on other grounds*, LBP-98-10, 47 NRC 288, *aff'd on other grounds*, CLI-98-13, 48 NRC 26 (1998).

¹⁰ LBP-05-5, 61 NRC 108, 111 (2005).

¹¹ *Id.* at 117-18, 124-25. See also 10 C.F.R. § 2.734(a) (2004) (now recodified, in substantially identical form, as 10 C.F.R. § 2.326(a) (2005)).

¹² CLI-05-12, 61 NRC at 353-55.

further handling by the fuel's owners.¹³ But, Utah argues, if DOE will not accept fuel in the canisters that PFS intends to use, then the fuel will have to be shipped back to the originating reactor or to another facility capable of transferring the fuel from one package to another.¹⁴ Utah claims that the environmental impact statement therefore has become inaccurate because it does not take into account the environmental impact of shipping the fuel across the country an additional time. PFS and the NRC Staff oppose Utah's motion to reopen.

II. DISCUSSION

We find that Utah's new information would not be likely to change the outcome of the proceeding or affect the licensing decision in a material way. Therefore, the record will remain closed. In addition, we decline to impose additional license conditions that may delay the PFS project unnecessarily and without significant benefit.

A. The Commission Has Jurisdiction To Consider the Motion To Reopen

As an initial matter, we reject PFS's argument that the Commission lacks jurisdiction even to consider Utah's motion to reopen.¹⁵ PFS argues that there is an important distinction between reopening the record in a case where the taking of evidence has concluded, but the Commission has not issued a final adjudicatory decision, and reopening the record where, as here, the Commission has already rendered its final adjudicatory decision. According to PFS, this case falls in the latter category because in CLI-05-19 — our decision on the last litigated contention in the case (concerning aircraft crash hazards) — we determined that the litigation had been resolved and we authorized the NRC Staff to issue PFS its license.¹⁶ Utah itself seemingly considered CLI-05-19 "final" agency action, as just days after filing its motion to reopen with the Commission, Utah filed a petition for review in the United States Court of Appeals for the District of

¹³ See, e.g., NUREG-1714, "Final Environmental Impact Statement for the Construction and Operation of an Independent Spent Fuel Storage Installation on the Reservation of the Skull Valley Band of Goshute Indians and the Related Transportation Facility in Tooele County, Utah" (FEIS), at 5-35, 5-38, 5-55 to -56. PFS's customers, primarily the originating reactor owners, will retain ownership of the spent fuel stored at the PFS facility.

¹⁴ PFS will have no facility capable of performing this operation, nor will its license allow this type of handling.

¹⁵ See Applicant's Response to State of Utah's Motion To Reopen the Record and To Amend Utah Contention Utah UU, at 5-9.

¹⁶ CLI-05-19, 62 NRC 403, 424 (2005).

Columbia Circuit.¹⁷ What all of this means, PFS claims, is that there is no longer any pending Commission adjudicatory proceeding to reopen. PFS argues that Utah's only remedy at this point is to petition the NRC to institute an enforcement proceeding under 10 C.F.R. § 2.206.¹⁸

The NRC Staff, while opposing Utah's motion on substantive grounds, does not agree with PFS that the Commission lacks jurisdiction to consider the motion. As the NRC Staff indicates,¹⁹ none of our prior cases involved "the precise procedural posture" Utah's motion presents. But some years ago, in the *Comanche Peak* licensing adjudication, the Commission rejected an argument similar to PFS's that the Commission lost jurisdiction to reopen the record after the litigation ended (through a settlement agreement) but before issuance of a license.²⁰ In *Comanche Peak*, the Commission held expressly that until a license actually is issued, "there remains in existence an operating license 'proceeding'" that can be "reopened."²¹

Comanche Peak defeats PFS's jurisdictional argument. Here, as in *Comanche Peak*, no license has yet issued. License issuance is the crucial point marking the end of any possibility of reopening an adjudicatory record. Until then, the Commission still has authority to add conditions to a license or to supplement an environmental impact statement if intervenors (or the NRC Staff itself) uncover significant, previously unconsidered, and newly arising safety or environmental impacts. Here, Utah argues that new information about DOE's Yucca Mountain plans requires us to restart adjudicatory hearings on the adequacy of the EIS. We have authority to consider Utah's claim. For NEPA purposes, the "major federal action" triggering the EIS is issuing the license, not adjudicating the license. Until a license issues, we must entertain motions to reopen the adjudicatory record, albeit under the strict standards of our reopening regulations.²² In short, we have jurisdiction to consider Utah's motion to reopen, and we now proceed to consider its substance.

¹⁷No. 05-1420 (D.C. Cir.). All parties joined in a motion with the court of appeals to hold Utah's petition for review, as well as a petition for review (No. 05-1419) filed by Ohngo Gaudadeh Devia, in abeyance to await our decision on Utah's motion to reopen.

¹⁸Because we find that we have jurisdiction over Utah's motion, we need not reach the issue of the appropriateness of a section 2.206 petition as a remedy in this matter.

¹⁹See NRC Staff's Response to "State of Utah's Motion To Reopen the Record and To Amend Contention Utah UU," at 6-7 n.15.

²⁰*Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Units 1 and 2)*, CLI-92-1, 35 NRC 1, 6 n.5 (1992).

²¹*Id.*

²²See 10 C.F.R. § 2.734 (2004) (now codified at 10 C.F.R. § 2.326 (2005)). See also CLI-05-12, 61 NRC at 350 & n.19.

B. The New Evidence Would Make No Material Difference in the Result

In such a case as this, with the record long closed, we do not lightly reopen our adjudicatory proceedings. Agencies need not reopen adjudicatory proceedings merely on a plea of new evidence:

Administrative consideration of evidence . . . always creates a gap between the time the record is closed and the time the administrative decision is promulgated If upon the coming down of the order litigants might demand rehearings as a matter of law because some new circumstance has arisen, some new trend has been observed, or some new fact discovered, there would be little hope that the administrative process could ever be consummated in an order that would not be subject to reopening.²³

Hence, in NRC practice, parties seeking to reopen a closed record must meet a stiff test: (1) the new information must raise a “significant” environmental or safety issue; and (2) a materially different result must be “likely” as a result of the new evidence.²⁴ Both the NRC Staff and PFS argue that Utah’s motion to reopen fails this test. We agree.

1. DOE’s Announcement Does Not Unequivocally Exclude PFS-Stored Waste

The NRC Staff and PFS argue that the evidence Utah submitted does not raise a material issue because DOE’s Yucca Mountain plans still have not been finalized and DOE has not yet taken a firm stance on which fuel containers it will and will not accept. According to the information Utah provided, DOE “has instructed its managing contractor to devise a plan to operate the site as a primarily ‘clean’ or non-contaminated facility,” meaning that “*most* spent nuclear fuel would be sent to Yucca Mountain in a standardized canister that would not require repetitive handling of bare fuel.”²⁵ But even in exploring this new option, DOE asked its contractor to come up with a recommendation for handling spent fuel that is

²³ *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 554-55 (1978) (internal quotation omitted). See also *Northern Lines Merger Cases*, 396 U.S. 491, 521 (1970).

²⁴ See 10 C.F.R. § 2.734(a) (2004). The new information must also be submitted in a “timely” fashion (except in the instance of an “exceptionally grave issue”). We find Utah’s motion to be timely.

²⁵ See “Yucca Mountain — Program Redirection Fact Sheet,” *supra* note 5 (emphasis added). DOE’s announcement states that it envisions that spent fuel will be delivered to Yucca Mountain “primarily” in standard canisters. See DOE News, “New Yucca Mountain Repository Design To Be Simpler, Safer and More Cost-Effective” (Utah Motion To Reopen, Exh. 2).

already being stored in welded canisters at reactor sites.²⁶ At this time it would be premature to conclude that DOE will *not* accept waste in PFS's welded canisters.²⁷

It should be noted that Utah recognizes that DOE has not expressly excluded acceptance of PFS-type prepackaged waste. Part of the relief Utah seeks is that the license be conditioned on:

- (1) a formal DOE pronouncement that the PFS canister (HI-STORM 100 Rev. 0) is the standardized canister selected by DOE to be accepted at the Yucca Mountain Repository, and
- (2) confirmation that DOE is obligated to collect fuel from the PFS off-site ISFSI.²⁸

Thus, Utah does not claim that the HI-STORM canister PFS plans to use is absolutely incompatible with plans for ultimate disposal at the proposed Yucca Mountain repository. Rather, Utah maintains that national waste policy would be better served, in terms of transportation and handling, if the containers PFS will use and those DOE will use are one and the same.

Therefore, argues Utah, the Commission should place the entire PFS project on hold until DOE can offer guarantees that it will take the spent fuel away from PFS directly to Yucca Mountain without further handling at PFS. Alternatively, Utah argues, the Commission should amend the final environmental impact statement (FEIS) to discuss the consequences of retransporting PFS-stored spent fuel on the assumption that it will have to be shipped back to its place of origin and repackaged.²⁹ But DOE's latest statements continue to leave room for accepting PFS-stored fuel at the proposed Yucca Mountain repository.³⁰ Hence, as when we considered Utah's prior version of its Contention UU, we cannot say on the current record that a materially different result in our licensing proceeding is so

²⁶ See Letter from W. John Arthur, III (Deputy Director, DOE Office of Civilian Radioactive Waste Management) to Ted. C. Feigenbaum (President and General Manager of Bechtel, SAIC, DOE's contractor), dated Oct. 25, 2005 (PFS Response, Attach. 2), directing Bechtel to design new canisters and "provide recommendations on optimum methods and timing of handling waste in existing non-disposable dual purpose canisters."

²⁷ Under Utah's interpretation of this far from conclusive DOE statement, numerous decommissioned sites using NRC-certified dual purpose canisters for storage (e.g., Trojan, Maine Yankee, Haddam Neck, Rancho Seco, and Big Rock Point), would face significant problems. We question whether DOE would intend to create such difficulties.

²⁸ See State of Utah's Motion To Reopen the Record and To Amend Contention Utah UU, at 7 (Nov. 3, 2005).

²⁹ Indeed, the FEIS already discusses the possibility that fuel would have to be shipped back to its place of origin instead of going on to Yucca Mountain. It states that the environmental impacts of shipping the fuel to Utah were expected to be small and the effects of shipping it back would be comparable to those of shipping it to the PFS facility in the first place. See FEIS at G-330.

³⁰ See notes 25-27, *supra*, and accompanying text.

“likely” that we must reopen the adjudicatory proceeding for additional hearings and findings.

Perhaps more significantly, as we explain below, even if we were to assume all factual uncertainties in Utah’s favor — that is, if we were to assume much or all of the PFS-stored spent fuel ultimately will be shipped back to originating reactors — the consequences are not so significant that NEPA would require reopening the record and amending the FEIS. We turn now to that point.

2. DOE’s Refusal To Pick Up Fuel Would Not Raise a Significant Environmental or Safety Issue

If we were to assume for the sake of argument that DOE will not accept waste directly from the PFS site, then — according to Utah — NEPA would require an analysis of the impacts of the additional transportation of fuel back to a facility capable of repackaging the spent fuel.³¹ We find that the additional transportation does not raise a serious environmental issue requiring a supplemental EIS, nor does it raise a “significant environmental or safety issue,” necessary to reopen a closed record.

As amended, Utah’s proposed contention states:

PFS’s license application and NRC’s final environmental impact statement fail to describe or analyze the effect of DOE’s refusal to collect fuel in welded or other non-standardized canisters from the PFS site and the concomitant potential to create a dysfunctional national waste management system, and added risks and costs from multiple and unnecessary fuel shipments back and forth across the country. In addition, absent a condition that fuel will only be accepted at PFS’s Skull Valley site if it can be shipped directly from PFS to a permanent repository, PFS must provide reasonable assurance that each and every fuel owner will accept the fuel back for repackaging and PFS or the fuel owner will place, up-front, in an escrow account, sufficient funds to cover the cost of fuel shipment back to the reactor or other facility for repackaging.³²

³¹ Utah’s contention focuses on the environmental effects of transportation, but not on the effects of repackaging. Its motion to reopen mentions “handling” in only cursory terms. At any rate, it is evident that at least a large percentage of the nation’s spent fuel must be stored temporarily in dry storage casks while awaiting DOE action, regardless of whether the PFS facility is available. Thus, fuel would have to be repackaged if DOE determines the existing canisters are inadequate, whether stored at PFS or not. The repackaging, if it has any effect on the environment at all, could not fairly be attributed to PFS.

³² See Motion To Reopen at 7-8; Utah’s Request for Admission of Late-Filed Contention Utah UU (Ramifications of DOE’s Refusal To Accept Fuel in Welded Canisters from the PFS Site) or in the Alternative Petition for Rulemaking at 2 (Nov. 12, 2004).

Earlier in this proceeding, in a lengthy ruling on financial assurance, the Licensing Board considered and rejected Utah's argument that PFS should place sufficient funds in escrow to pay for transporting spent fuel back to the originating reactors.³³ The Board found the model service agreement, which makes clear that the fuel owners have the responsibility to pay for offsite transportation, ensures that there will be funds to remove the fuel from the PFS site at the end of the license.³⁴ Nothing in the Board's ruling suggests that its finding of adequate financial assurance was predicated on the assumption that DOE would pick the fuel up from the PFS site.³⁵ Therefore, the new information that Utah characterizes as showing that DOE will not accept prepackaged fuel at Yucca Mountain does not affect the previous adjudicatory ruling that PFS is not required to place funds in escrow for shipping the fuel back to its place of origin.

This leaves the question whether the potential additional transportation impacts require a supplemental EIS, and hence requires us to reopen the record.

a. NEPA Standards for Supplementing an EIS

A supplemental EIS is needed where new information "raises new concerns of sufficient gravity such that another, formal in-depth look at the environmental consequences of the proposed action is necessary."³⁶ The new information must paint a "seriously different picture of the environmental landscape."³⁷

NEPA case law suggests that "new information" requires a supplemental EIS when it raises a previously unknown environmental concern, but not necessarily when it amounts to mere additional evidence supporting one side or the other of a disputed environmental effect. For example, the Fourth Circuit ruled that the Army Corps of Engineers would have to supplement its EIS after the Environmental Protection Agency informed the Corps that its proposed project would cause a "devastating" zebra mussel infestation to a wild river and wipe out populations of endangered native mussels.³⁸ On the other hand, in *Wisconsin v. Weinberger*, the Seventh Circuit approved the Navy's decision not to supplement its EIS with respect to the effects of electromagnetic radiation where additional studies done after its publication had inconsistent results and limited relevance to

³³ LBP-05-20, 62 NRC 187, 236-37 (2005), *review denied*, CLI-04-10, 61 NRC 131 (2004).

³⁴ *See id.*

³⁵ *Id.*

³⁶ *Wisconsin v. Weinberger*, 745 F.2d 412, 418 (7th Cir. 1984). *See Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989).

³⁷ *National Committee for the New River, Inc. v. Federal Energy Regulatory Commission*, 373 F.3d 1323, 1330 (D.C. Cir. 2004), quoting *City of Olmsted Falls v. Federal Aviation Administration*, 292 F.3d 261, 274 (D.C. Cir. 2002) (emphasis in original).

³⁸ *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 444 (4th Cir. 1996).

the Navy's proposed project.³⁹ The Seventh Circuit held that those studies that suggested electromagnetic radiation could be harmful at high doses did not "alter the view" of the likely environmental effect of the Navy's use of low doses of electromagnetic radiation.

Similarly, in *Marsh v. Oregon Natural Resources Council*,⁴⁰ the Supreme Court accepted the Army Corps of Engineers' reasoning for not supplementing the EIS for a proposed dam to consider a study and related memorandum claiming that the dam would raise water temperature and turbidity downstream — effects that had already been studied. The Court deferred to the Corps' conclusion that "the new and accurate information contained in the documents was not significant and that the significant information was not new and accurate."⁴¹

We think that the effects of additional transportation — if such transportation in fact proves necessary — are not so significant or central to the FEIS's discussion of environmental impacts that an FEIS supplement (and the consequent reopening of our adjudicatory record) is reasonable or necessary. The FEIS analyzed the impacts of shipping waste from eastern reactors to the PFS facility, and (ultimately) on to the Utah-Nevada border.⁴² The FEIS showed that transportation of the fuel to the PFS facility is not anticipated to have significant environmental impacts.⁴³ Specifically, it found that the nonradiological risks from transportation-related pollution were small,⁴⁴ risks from transportation accidents were "small,"⁴⁵ and radiological risks of transportation were also "small."⁴⁶ While loading the fuel back onto trucks or trains and shipping it back to originating reactors would no doubt be costly, the environmental effects would be of the type and severity (that is, "small") originally discussed in the FEIS. Indeed, the FEIS stated expressly that reshipment, should it prove necessary, would have "small" impacts.⁴⁷

b. Cost-Benefit Analysis

The potential economic impacts of additional transportation are more pro-

³⁹ *Weinberger*, 745 F.2d at 422-23.

⁴⁰ 490 U.S. 360 (1989).

⁴¹ *Id.* at 378.

⁴² See NUREG-1714, "Final Environmental Impact Statement for the Construction and Operation of an Independent Spent Fuel Storage Installation on the Reservation of the Skull Valley Band of Goshute Indians and the Related Transportation Facility in Tooele County, Utah" (FEIS), section 5.7, "Human Health Impacts of SNF Transportation," at 5-35 to -64.

⁴³ *Id.*

⁴⁴ *Id.* at 5-39.

⁴⁵ *Id.* at 5-38.

⁴⁶ *Id.* at 5-39 to -41.

⁴⁷ See FEIS at G-330.

nounced than the potential environmental impacts. The FEIS considered the most significant economic benefit of the project to be the storage costs the fuel owners would save.⁴⁸ The additional transportation of fuel back to the originating reactor no doubt would increase the customer's expenses, reducing the project's economic benefits to the customer, and altering balance of the costs to benefits as described in the FEIS. Because the difference in the analysis is primarily *financial*, however, we do not find that NEPA requires a reanalysis this late in the licensing proceeding.

We have previously rejected a challenge to the PFS FEIS that was based primarily on economics.⁴⁹ We recognize that NEPA requires a weighing of the environmental costs of a project against its benefits to society at large.⁵⁰ While economic benefits are properly considered in an EIS, NEPA does not transform the financial costs and benefits into environmental costs and benefits.

c. Additional License Conditions Are Unnecessary

Utah also asks that even if we do not reopen the adjudicatory record to allow litigation on the implications of DOE's recent announcement, we nevertheless should impose conditions on PFS's license as follows:

- (1) a formal DOE pronouncement that the PFS canister (HI-STORM 100, Rev. 0) is the standardized canister selected by DOE to be accepted at the Yucca Mountain Repository, and
- (2) confirmation that DOE is obligated to collect fuel from the PFS off-site ISFSI.⁵¹

Utah cites no provision in law requiring the condition it asks NRC to impose. Utah does point to a provision in the Nuclear Waste Policy Act (NWPA) authorizing the Commission to predicate a reactor license on the licensee's first entering a waste disposal contract with DOE,⁵² and advocates that a similar requirement be imposed on PFS.

The NRC, of course, has general authority to impose reasonable restrictions on licenses to protect public health and safety and common defense and security.⁵³ But there are potential obstacles to requiring such a condition here. First of all, DOE has no statutory duty (or evident authority) to enter into a disposal contract

⁴⁸ FEIS at 8-4.

⁴⁹ See CLI-04-22, 60 NRC 125, 141-46 (2004).

⁵⁰ *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 89 (1998).

⁵¹ See State of Utah's Motion To Reopen the Record and To Amend Contention Utah UU, at 6 (Nov. 3, 2005).

⁵² See, e.g., Nuclear Waste Policy Act of 1982, § 302(b)(1)(B), 42 U.S.C. § 10222(b)(1)(B).

⁵³ See Atomic Energy Act § 161b, 42 U.S.C. § 2201b.

with PFS directly (although it continues to have a statutory duty and contractual duty to the spent fuel owners ultimately to dispose of the spent fuel). Second, DOE would be understandably reluctant to enter into an agreement to accept a particular canister when it has just begun exploring the option of designing the facility to use a standard, DOE-provided canister. And, third, we see no health-and-safety basis for requiring an agreement with DOE in advance of licensing.

Including a “DOE agreement” condition in PFS’s license effectively would place the approval of the PFS project in DOE’s hands, and would put the project on hold until DOE finalizes its plans. We do not think that the NWPA was intended to have any such effect. To the contrary, that Act expressly encouraged the development of dry cask storage and temporary storage facilities.⁵⁴ Delaying a *temporary* storage facility until such time as DOE completes its design of a *permanent* facility would considerably diminish the temporary facility’s usefulness. To force PFS to put its facility on hold until the plans for a permanent repository are finalized would violate the spirit, if not the letter, of the NWPA and would thwart the nation’s statutory and regulatory scheme putting the NRC in charge of licensing commercial or private spent fuel storage facilities and making sure they are safely built and operated.

We therefore decline to impose the license conditions Utah proposes.

III. CONCLUSION

For the foregoing reasons, we deny Utah’s motion in its entirety.⁵⁵
IT IS SO ORDERED.

For the Commission

ANDREW L. BATES for
ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 31st day of January 2006.

⁵⁴ See, e.g., Nuclear Waste Policy Act § 218 (Research and Development on Spent Nuclear Fuel), 42 U.S.C. § 10198.

⁵⁵ Although we decide today that Utah’s motion to reopen does not justify formally supplementing the FEIS, our Memorandum and Order becomes part of the agency’s NEPA record of decision, as we have pointed out in other decisions in this docket. See, e.g., CLI-02-25, 56 NRC 340, 356 n.66 (2002).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

**Docket Nos. 50-336-LR
50-423-LR**

DOMINION NUCLEAR CONNECTICUT, INC.
(Millstone Nuclear Power Station,
Units 2 and 3)

January 31, 2006

MOTION TO REOPEN

When a licensing board has already dismissed the case, the licensing board no longer has jurisdiction over a motion to reopen. *See, e.g., Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-823, 22 NRC 773, 775 (1985).

MOTION TO REOPEN

Until a license has actually been issued, the Commission itself (as opposed to the Licensing Board) retains jurisdiction to reopen a closed case. *See, e.g., Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19 (2006); *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-1, 37 NRC 1 (1993); *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-1, 35 NRC 1 (1992).

ALLEGATIONS OF STAFF MISCONDUCT

A difference of opinion over a scientific question does not constitute fraud or misconduct on the part of the NRC Staff.

MOTION TO REOPEN

A motion to reopen a closed proceeding must satisfy the requirements of 10 C.F.R. § 2.326.

MOTIONS IN NRC PROCEEDINGS

A motion to reopen that does not satisfy the Commission's procedural requirements but which arguably raises a significant safety or environmental issue may be referred to the Staff under 10 C.F.R. § 2.206.

LICENSE RENEWAL

In a license renewal proceeding, petitioners must demonstrate that an issue "focuses on 'the potential impacts of an additional 20 years of nuclear power plant operation,' not on everyday operational issues." *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637-38 (2004), quoting *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 7 (2001).

MOTION TO REOPEN

A motion to reopen a closed proceeding must be timely. 10 C.F.R. § 2.326(a). A pleading cannot be timely when the petitioner does not explain why the motion was filed 11 months after the NRC terminated the case, 9 months after the petitioner first raised the particular issue in its comments, and 4 months after the Staff issued the final document containing the position the petitioner disputes.

MOTION TO REOPEN

If a party seeks to reopen a closed record and, in the process raises an issue that was not an admitted contention in the initial proceeding, it must also demonstrate that raising this issue now satisfies the requirements for a nontimely or "late-filed" contention. 10 C.F.R. § 2.326(d).

MOTION TO REOPEN

The NRC will not consider a last-second reopening of an adjudication and a restart of licensing board proceedings based on a pleading that is defective on its face.

ATTORNEY CONDUCT

Based upon an attorney's previous disregard of the NRC's practices and procedures, the Commission may order the Office of the Secretary to screen all filings bearing the offender's signature and not to accept or docket them unless they meet all procedural requirements. 10 C.F.R. § 2.346(h).

MOTION TO REOPEN

An order denying a motion to reopen renders moot a petitioner's request for leave to submit an amended petition to intervene.

MEMORANDUM OPINION AND ORDER

I. INTRODUCTION

The Connecticut Coalition Against Millstone (CCAM) has filed a Motion To Reopen a closed proceeding involving the extension (or renewal) of the Millstone operating licenses. Our regulations require that the Motion To Reopen satisfy the criteria set out in 10 C.F.R. § 2.326. On its face, the Motion before us does not satisfy those criteria; indeed, it does not even attempt to do so. Accordingly, as more fully described below, we deny the Motion To Reopen.

II. THE PROCEEDING

On March 12, 2004, the NRC Staff published a *Federal Register* Notice announcing an opportunity for a hearing with regard to Dominion Nuclear's applications to extend the operating licenses of Millstone Units 2 and 3 for an additional 20-year period. *See* 69 Fed. Reg. 11,897. On March 22, 2004, CCAM filed a petition for leave to intervene and a request for a hearing, which we referred to the Atomic Safety and Licensing Board Panel. The ASLBP established a three-member Licensing Board to review the petition and to conduct further proceedings.

In July of 2004, the Licensing Board issued a decision dismissing the Petition to Intervene. LBP-04-15, 60 NRC 81 (2004). CCAM then filed a Motion for Reconsideration, which was denied by the Licensing Board. LBP-04-22, 60 NRC 379 (2004). On appeal, the Commission affirmed the Licensing Board's decisions and terminated the proceeding. CLI-04-36, 60 NRC 631 (2004).¹ On November 28, 2005, the NRC Staff issued the renewed licenses of the two Millstone units.

III. THE MOTION TO REOPEN

On November 25, 2005, a few days before the Staff issued the renewed licenses, CCAM filed the instant Motion To Reopen the proceeding. CCAM claims that its Motion "is premised upon newly discovered evidence of fraud, deceit, and cover-up" by the NRC Staff. Motion at 1. As a basis for their charge, CCAM asserts that the Millstone facility "releases levels of Strontium-90 to the environment which are in excess of its federal license," *id.*; and that certain statements in Supplement 22 of the NRC's Generic Environmental Impact Statement ("GEIS") for License Renewal of Nuclear Plants that deal with the strontium-90 issue at Millstone are incorrect. Motion at 2-7.² CCAM's dispute with both the Staff and the Licensee centers on the significance (and cause) of the levels of strontium-90 observed in milk taken from a goat herd pastured near the Millstone facility. The Motion also "seeks leave to submit an amended petition for leave to intervene." Motion at 1.

The Licensee has filed a very brief Response opposing the Motion; the NRC Staff chose not to file a response.

IV. ANALYSIS

A. Jurisdiction

Initially, we must determine if we have jurisdiction to consider this Motion. CCAM designated the Motion as filed before "the Atomic Safety and Licensing Board," but the Board has already dismissed the case and no longer has jurisdiction over the matter. *See, e.g., Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-823, 22 NRC 773, 775 (1985)*. However, until

¹ The Commission also recently denied a request for late intervention in this proceeding submitted by Suffolk County, New York. CLI-05-24, 62 NRC 551 (2005).

² The Draft of Supplement 22 to the GEIS was issued by the NRC Staff on December 3, 2004. The comment period closed on March 2, 2005, and the final Supplement 22 was issued on July 18, 2005. *See* 70 Fed. Reg. 42,395 (July 22, 2005).

the license has actually been issued, the Commission itself (as opposed to the Licensing Board) retains jurisdiction to reopen a closed case. *See, e.g., Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-1, 37 NRC 1 (1993); *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-1, 35 NRC 1 (1992). We reach the same result in another decision issued today. *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19 (2006).³ As the licenses in question here (i.e., the renewed licenses) had not been issued when CCAM filed its Motion, we have jurisdiction to consider the Motion To Reopen.⁴

B. Allegations of NRC Staff Misconduct

Turning to the Motion, we first address CCAM's allegations of misconduct by the NRC Staff. CCAM alleges that the Motion "is premised upon newly discovered evidence of fraud, deceit and cover-up by the NRC Staff." Motion at 1. CCAM's single allegation of fraud is the NRC Staff's public response to CCAM's comments on the Supplement to the GEIS on License Renewal.

The NRC has issued a Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Plants and issued a Supplement dealing with site-specific items for each individual site when that particular license renewal is being considered. On December 3, 2004, the Staff issued a Draft Supplement 22 of the GEIS dealing with the renewal of the Millstone licenses. 69 Fed. Reg. 71,437 (Dec. 9, 2004). The comment period closed on March 2, 2005, and the final Supplement was issued on July 18, 2005. 70 Fed. Reg. 42,395 (July 22, 2005).

In its Motion, CCAM states that it submitted comments on the draft of Supplement 22, raising several issues including the strontium-90 issue. Motion ¶¶ 1-2, 3-5. CCAM has resubmitted those comments as an attachment to the Motion now before us. Motion ¶ 1. CCAM alleges that the Licensee responded to those comments, providing an explanation of the observed levels, and the NRC Staff accepted the Licensee's explanation. Motion ¶¶ 7-8, 20. CCAM then disputes the analysis of this issue contained in Supplement 22, Motion ¶¶ 11-19, and alleges that by not identifying Millstone as the source of the excessive levels of strontium-90, "Dominion and the NRC have engaged in fraud, deceit and cover-up for the purpose of justifying license extension." Motion ¶ 21. CCAM offers no other support for its allegation of Staff misconduct.

CCAM's allegation of "fraud, deceit and cover-up" is frivolous. We have reviewed CCAM's comments disputing the Staff's decision in Supplement 22 of

³ Commissioner Jaczko abstained from that decision.

⁴ If the Staff had issued the licenses *before* CCAM filed the Motion To Reopen, the Motion would be considered as a petition for enforcement action under 10 C.F.R. § 2.206. *E.g., Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-12, 36 NRC 62, 67 (1992).

the GEIS and see no reason to consider the dispute anything other than a difference of opinion over a scientific question. The mere fact that the Staff appears to have accepted the Licensee's explanation of the increased levels of strontium-90 does not constitute "fraud, deceit, and cover-up."

Moreover, we find no reason to accept this allegation as sufficient "premise," *see* Motion at 1, for the Motion To Reopen itself. The NRC Staff published Supplement 22 in July of 2005, giving CCAM notice that the NRC Staff had rejected its comments. Yet CCAM has waited over 4 months to file this Motion without any explanation of the delay.

C. The Motion to Reopen

As a procedural matter, the Motion before us fails even to address the regulations that are applicable to a motion to reopen. Under our regulations,

[a] motion to reopen a closed record to consider additional evidence will not be granted unless the following criteria are satisfied:

- (1) The motion must be timely . . . ;
- (2) The motion must address a significant safety or environmental issue; and
- (3) The motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.

10 C.F.R. § 2.326(a). In addition, the motion "must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the criteria of paragraph (a) . . . have been satisfied." 10 C.F.R. § 2.326(b). Furthermore, "[a] motion to reopen which relates to a contention not previously in controversy among the parties must also satisfy the requirements for nontimely contentions in § 2.309(c)." 10 C.F.R. § 2.326(d).

Initially, while CCAM does not explicitly say so, the Motion arguably does address a significant safety or environmental issue: the possible release of excessive amounts of strontium-90 into the environment. But CCAM does not explain how the release of strontium-90 falls within the framework of a license renewal proceeding, which "focuses on 'the potential impacts of an additional 20 years of nuclear power plant operation,' not on everyday operational issues." *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637-38 (2004), *quoting Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 7 (2001). If the Millstone facility were releasing excessive amounts of strontium-90 under its current license, that would be reason for corrective enforcement action of an "everyday operational issue," *Millstone*, CLI-04-36, *supra*. The alleged problem would not be a reason for denying license renewal.

Accordingly, we will treat the Motion as a request for action under the provisions of 10 C.F.R. § 2.206 that the plant is releasing strontium-90 in excess of the limits contained in its current license. Therefore, we refer CCAM's strontium-90 concern to the NRC Staff for whatever action they deem necessary.

The other two criteria in section 2.326(a) are timeliness and whether a different result would have been reached in the case. CCAM does not address the timeliness factor at all. It never explains why it filed the Motion 11 months after we terminated the case involving CCAM, 9 months after CCAM first raised the strontium-90 issue in its comments on the Draft Supplement 22 to the GEIS, and 4 months after the Staff issued the final Supplement 22 containing the position CCAM disputes. Thus, there is no reason for the Commission to consider CCAM's Motion "timely." Similarly, CCAM makes no attempt to explain how we would have reached a different result had we considered the evidence that CCAM now presents.

Moreover, CCAM did not raise the strontium-90 issue as a contention in the earlier proceeding before the Licensing Board. *See* LBP-04-15, 60 NRC 81 (2004). Thus, section 2.326(d) of our regulations requires that a motion to reopen that proceeding address the provisions for filing a late-filed contention in 10 C.F.R. § 2.309(c). Quite simply, if a party seeks to reopen a closed record and, in the process raises an issue that was not an admitted contention in the initial proceeding, it must demonstrate that raising this issue satisfies the requirements for a nontimely or "late-filed" contention. As with all other procedural requirements for reopening a closed proceeding, CCAM completely ignores this requirement.

In short, CCAM's blatant procedural defaults and its frivolous "fraud" assertion require us to deny its Motion. Our procedural rules exist for a reason. We cannot consider a last-second reopening of an adjudication and a restart of Licensing Board proceedings based on a pleading that is defective on its face.

V. ACTIONS OF CCAM'S REPRESENTATIVE

This is not the first Millstone proceeding where CCAM, acting through its representative (or counsel), Nancy Burton, has not followed established Commission procedures. *See* CLI-04-36, 60 NRC at 643-44. We previously warned Ms. Burton that "further disregard of our practices and procedures" would result in disciplinary action. CLI-04-36, 60 NRC at 644. Hence, today we order the Office of the Secretary to screen all filings bearing Ms. Burton's signature and not to accept or docket them unless they meet all procedural requirements. We direct the Secretary to reject summarily any nonconforming pleadings without referring

them to the Atomic Safety and Licensing Board Panel or the Commission. *See* 10 C.F.R. § 2.346(h).⁵

VI. SUMMARY

In sum, not only has CCAM failed to meet the standards in our regulations for reopening a closed record, it has not even attempted to meet those standards. Accordingly, the Motion To Reopen is denied, which renders moot CCAM's request for leave to submit an amended petition to intervene. But in view of the fact that CCAM has raised an issue that could plausibly affect public health and safety if it were true, we refer the Motion to the Staff for treatment, as appropriate, under 10 C.F.R. § 2.206. Finally, we direct the Office of the Secretary not to accept for filing or docketing any pleading signed by Ms. Burton that does not conform to the NRC's rules of practice.

IT IS SO ORDERED.

For the Commission

ANDREW L. BATES for
ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 31st day of January 2006.

⁵ Any rejected pleading from Ms. Burton containing allegation material or a request for enforcement action will be forwarded to the Staff for appropriate action in accordance with our normal procedures.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

E. Roy Hawkens, Presiding Officer
Dr. Richard F. Cole, Special Assistant
Dr. Robin Brett, Special Assistant

In the Matter of

Docket No. 40-8968-ML
(ASLBP No. 95-706-01-ML)

HYDRO RESOURCES, INC.
(P.O. Box 777, Crownpoint,
New Mexico 87313)

January 6, 2006

In this Phase II decision resolving the third category of challenges by multiple intervenors to a license application by Hydro Resources, Inc. (HRI) to perform in situ leach (ISL) uranium mining at three sites in McKinley County, New Mexico, the Board finds that HRI has demonstrated that the Intervenor's challenges relating to radiological air emissions do not provide a basis for invalidating or amending HRI's license.

REGULATORY CONSTRUCTION: BACKGROUND RADIATION

Pursuant to the rule of the last antecedent, "qualifying words, phrases and clauses must be applied to the words or phrases immediately preceding them and are not to be construed as extending to and including others more remote." *Demko v. United States*, 216 F.3d 1049, 1053 (Fed. Cir. 2000) (quoting *Wilshire Westwood Associates v. Atlantic Richfield Corp.*, 881 F.2d 801, 804 (9th Cir. 1989)). However, this rule is not to be applied inflexibly without regard for the intent of the drafters. In the regulatory definition of "background radiation," because the regulatory words "source, byproduct, [and] special nuclear materials"

(10 C.F.R. § 20.1003) “are followed by a clause which is applicable as much to the first and other words as to the last, the natural construction of the language demands that the clause be read as applicable to all.” *Porto Rico Railway, Light & Power Co. v. Mor*, 253 U.S. 345, 348 (1920).

RULES OF PRACTICE: LAW OF THE CASE

Pursuant to the law of the case doctrine — which is a rule of repose designed to promote judicial economy and jurisprudential integrity — the decision of an appellate tribunal should ordinarily be followed in all subsequent phases of that case, provided that the particular question in issue was “actually decided or decided by necessary implication.” *Safety Light Corp.* (Bloomsburg Site Decontamination), CLI-92-9, 35 NRC 156, 159-60 & n.5 (1992).

RULES OF PRACTICE: EFFECT OF COMMISSION DENIAL OF REVIEW

The Commission’s denial of review in a proceeding is not a decision on the merits. It simply indicates that the appealing party “identified no ‘clearly erroneous’ factual finding or important legal error requiring Commission correction.” *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-00-12, 52 NRC 1, 3 (2000) (citing 10 C.F.R. § 2.786(b)(4)).

RULES OF PRACTICE: PRECEDENTIAL EFFECT OF LICENSING BOARD DECISION

That a licensing board’s decision is not affirmed by the Commission does not mean that its analysis is perforce wholly without precedential value. *Cf. Sequoyah Fuels Corp.*, CLI-95-2, 41 NRC 179, 190 (1995) (“Licensing Board decisions . . . have no precedential effect beyond the immediate proceeding in which they were issued”). Rather, it means that the precedential value of its analysis is limited to its power to persuade.

RULES OF PRACTICE: CHALLENGE OF COMMISSION REGULATION

An intervenor may not attempt to use a license application proceeding to rewrite Commission regulations. *See Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant), 4 AEC 243, 244 (1969); 10 C.F.R. § 2.335. To the extent that an intervenor disagrees with a regulation, its recourse is to petition the Commission for rulemaking to change it. 10 C.F.R. § 2.802.

NEPA: CUMULATIVE IMPACTS ANALYSIS

“Cumulative impacts analysis looks to whether the impacts from a proposed project will combine with the existing, residual impacts in the area to result in a significant ‘cumulative’ impact — where, in other words, the new impact is significantly enhanced by already existing environmental effects.” *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 61-62 (2001).

REGULATIONS: BYPRODUCT MATERIAL

As relevant here, for “tailings or wastes” to fall within the definition of byproduct material, the plain statutory and regulatory language requires that such tailings or wastes be “produced” from ore that has been “processed” for its source material content (42 U.S.C. § 2014(e)(2); 10 C.F.R. § 20.1003). *See also* 57 Fed. Reg. 20,525 (May 13, 1992) (“[f]or the tailings and waste . . . to qualify as 11e(2) byproduct material, the ore must be processed primarily for its source-material content”). In other words, byproduct material occurs as a result of a *processing* activity that *extracts* uranium from ore or otherwise renders the uranium ore into a purer state of uranium. *See* 10 C.F.R. § 40.4 (defining “unrefined and unprocessed ore” as “ore in its natural form prior to any processing, such as grinding, roasting or beneficiating, or refining”); *cf.* 42 U.S.C. § 7911(8) & 40 C.F.R. § 192.01(m) (Uranium Mill Tailings Radiation Control Act of 1978 and EPA regulation define “tailings” as “the remaining portion of a metal-bearing ore after some or all of such metal, such as uranium, has been extracted”).

REGULATIONS: TOTAL EFFECTIVE DOSE EQUIVALENT CALCULATION

Section 20.1301(a)(1) of 10 C.F.R. requires a licensee to ensure that the total effective dose equivalent (TEDE) “to individual members of the public from the licensed operation” does not exceed 0.1 rem per year “exclusive of the dose contributions from background radiation” and other specified sources (10 C.F.R. § 20.1301(a)(1)). Significantly, the phrase “from the licensed operation” appears to serve as a limitation on what is to be included in the TEDE calculation.

REGULATIONS: TERM LACKING STATUTORY OR REGULATORY DEFINITION

When a term lacks a statutory or regulatory definition, it should be construed in accord with its “ordinary or natural meaning.” *Smith v. United States*, 508 U.S. 223, 228 (1993).

REGULATIONS: NATURALLY OCCURRING RADIOACTIVE MATERIAL

The meaning of the term “naturally occurring radioactive material” or NORM, which is not defined in the Atomic Energy Act or Commission regulations, is informed by regulatory and industry usage and practice. NORM is accorded a broad, commonsensical meaning. It consists of materials that contain primordial radioisotopes (e.g., uranium and its progeny) which are present naturally in rocks, soils, water, and minerals, and that are not regulated by the Commission. This broad definition of NORM includes radioactive materials that are undisturbed in nature, as well as radioactive materials that, as a result of human activities, are no longer in their natural state. For example, NORM includes the following industrial wastes that are not regulated by the Commission: uranium mining overburden, phosphate waste, water treatment waste, petroleum production waste, mineral processing waste, and geothermal energy production waste.

REGULATIONS: NATURALLY OCCURRING RADIOACTIVE MATERIAL

Around 1998, as a result of regulatory and industry practice, the subset of NORM whose radionuclides have become concentrated and/or exposed as a result of human activities became known as “technologically enhanced naturally occurring radioactive materials,” or TENORM. The National Academy of Sciences (NAS) defines TENORM as “any naturally occurring material not subject to regulation under the Atomic Energy Act whose radionuclide concentrations or potential for human exposure have been increased above levels encountered in the natural state by human activities” (National Research Council of the [NAS] and National Academy of Engineering, “Evaluation of Guidelines for Exposures to [TENORM],” at 19 (1999)).

REGULATIONS: BACKGROUND RADIATION

In the definition of “background radiation” (10 C.F.R. § 20.1003), the phrase “not under the control of the licensee” was added in 1997 when the Commission amended the definition to include fallout from past nuclear accidents such as Chernobyl (62 Fed. Reg. 39,058, 39,087 (July 21, 1997)). The regulatory history of this amendment indicates that the phrase “not under the control of the licensee” was intended only to apply to Chernobyl-like fallout, not to the antecedent phrase “naturally occurring radioactive materials.” *See* 59 Fed. Reg. 43,200, 43,217 (Aug. 22, 1994).

REGULATIONS: BACKGROUND RADIATION

“Background radiation” is defined as “naturally occurring radioactive material, including radon (*except as a decay product of source or special nuclear material*)” (10 C.F.R. § 20.1003) (emphasis added). The radon parenthetical was designed to except only radon that is a decay product of source and special nuclear materials that are regulated by the Commission. This conclusion is supported by regulatory history, which indicates that the Commission intended to include “ambient radon levels” within the definition of “background radiation.” See 56 Fed. Reg. 23,360, 23,365 (May 21, 1991). To interpret the radon parenthetical as applying to radon from *all* source and special nuclear materials would essentially exclude all radon from background radiation, thus negating the Commission’s stated purpose of including radiological emissions from “ambient radon” in background radiation. Cf. *Exxon Nuclear Co.* (Nuclear Fuel Recovery and Recycling Center), ALAB-447, 6 NRC 873, 878 (1977) (“[i]t is an elementary canon of construction that we ‘cannot interpret federal statutes to negate their own stated purposes’”) (quoting *New York State Department of Social Services v. Dublino*, 413 U.S. 405, 419-20 (1973)).

PARTIAL INITIAL DECISION **(Phase II Radiological Air Emissions Challenges to** **In Situ Leach Uranium Mining License)**

I. INTRODUCTION

In November 1994, the NRC Staff issued a “Notice of Opportunity for Hearing” concerning an application by Hydro Resources, Inc. (HRI) to construct and operate an in situ leach (ISL) uranium mining project in New Mexico. In response, timely requests for hearing were filed by the Eastern Navajo Diné Against Uranium Mining, the Southwest Research and Information Center, Grace Sam, and Marilyn Morris [hereinafter referred to collectively as the Intervenors], asserting that HRI’s license application should not be granted. The then-Presiding Officer held the hearing requests in abeyance until the Staff completed its review of HRI’s license application.

On January 5, 1998, the Staff granted HRI a 10 C.F.R. Part 40 materials license (SUA-1508) to perform ISL mining at the following four sites in McKinley County, New Mexico: Section 8 and Section 17 in Church Rock, and Crownpoint and Unit 1 in Crownpoint. Shortly thereafter, in May 1998, the then-Presiding Officer granted the Intervenors’ requests for a hearing to challenge that license, and this protracted litigation ensued.

Although HRI has held its license for 8 years, it has not yet started mining at any of the four sites due, in part, to profitability concerns related to the fluctuating price of uranium. This litigation nevertheless has gone forward, focusing initially — in what was characterized as Phase I — on issues specific to mining operations at Section 8, because HRI represented that it would mine this section first.

In February 2004, the then-Presiding Officer completed adjudicating the Intervenor's Phase I challenges to HRI's license (LBP-04-3, 59 NRC 84 (2004)). The Commission, on appeal, sustained the validity of HRI's license to engage in mining operations at Section 8 (CLI-04-33, 60 NRC 581 (2004)).

This litigation then entered Phase II, which involves the Intervenor's challenges to HRI's license insofar as it authorizes mining at the other three sites. For efficiency, the Intervenor's Phase II challenges have been grouped into the following four categories: (1) groundwater protection and restoration, and surety estimates; (2) cultural resources; (3) radiological air emissions; and (4) adequacy of environmental impact statement.

This Decision resolves the issues embodied in the third category of Phase II challenges — i.e., radiological air emissions.¹ The Intervenor's challenges here are directed solely at HRI's prospective mining operations at Section 17. The Intervenor's argue that HRI's license to mine at Section 17 should be invalidated or amended because: (1) the radiological air emissions incident to HRI's mining operations at Section 17 will result in an annual radiation exposure to the general public that exceeds 0.1 rem, in violation of 10 C.F.R. § 20.1301(a)(1); and (2) HRI's license application for Section 17 contains inadequate data regarding its radiological air emissions calculations and controls.

For the reasons set forth below, I find — with the concurrence of Dr. Richard Cole and Dr. Robin Brett, who have been appointed as Special Assistants — that HRI has demonstrated that the Intervenor's challenges relating to radiological air emissions at Section 17 do not provide a basis for invalidating or amending HRI's license.

¹On July 20, 2005, and September 16, 2005, this Board issued decisions on, respectively, the first and second categories of the Intervenor's Phase II challenges. Each decision concluded that the Intervenor's challenges did not provide a basis for invalidating HRI's license. *See* LBP-05-17, 62 NRC 77 (2005) (petition for review filed Aug. 9, 2005); LBP-05-26, 62 NRC 442 (2005) (petition for review filed Oct. 5, 2005).

II. BACKGROUND

A. An Overview of ISL Uranium Mining, Radiological Air Emissions from ISL Mining, and HRI's Air Emissions Controls for Section 17

1. ISL Uranium Mining

HRI's license, SUA-1508, authorizes it to perform ISL uranium mining at four proximately clustered sites in McKinley County, New Mexico: Sections 8 and 17 near the town of Church Rock, and Crownpoint and Unit 1 near the town of Crownpoint.

HRI's ISL uranium mining process, briefly explained, will involve two principal steps. First, HRI will inject a leach solution called "lixiviant" (which is a mixture of groundwater charged with oxygen and bicarbonate) through wells located in a targeted zone containing uranium oxide. The uranium oxide, which occurs as small mineral grains within a sandstone host rock, dissolves when it comes into contact with the lixiviant. HRI will also operate production wells located within a pattern of injection wells. The production wells create a reduced pressure in the mined region by withdrawing slightly more water from the ground than is injected, thus controlling the horizontal spread of the pregnant lixiviant (i.e., the lixiviant that now contains dissolved uranium oxide), and causing it to flow toward the production wells where it is pumped to the surface. *See* NUREG-1508, "Final Environmental Impact Statement To Construct and Operate the Crownpoint Uranium Solution Mining Project, Crownpoint, New Mexico," at 2-2 to 2-5 (Feb. 1997) [hereinafter FEIS].

The second step of the ISL mining process occurs after the pregnant lixiviant is pumped to the surface. HRI will pipe the pregnant lixiviant through columns of ion exchange resin, during which the uranium oxide will attach to the resin. Upon leaving the ion exchanger, the now-barren lixiviant will be recharged as necessary with oxygen and bicarbonate, and it will then be reinjected into the ore zone to repeat the leaching cycle. When the ion exchange capacity of a column of resin is depleted, that column is taken offline and the uranium oxide is chemically stripped from the resin. The resulting uranium oxide slurry is filtered and dried to produce the finished product — uranium oxide concentrate, or yellowcake — which is packaged and stored for final shipment. *See* FEIS at 2-5 to 2-12.

As will be discussed *infra* Part II.A.2, when HRI conducts its mining at Section 17, it will pipe the pregnant lixiviant from Section 17 to a satellite facility at Section 8 that contains the ion exchange columns. When the uranium oxide is chemically stripped from a column of ion exchange resin, the uranium oxide slurry will be trucked from Section 8 to the Crownpoint Processing Plant where it will be dried and packaged (FEIS at 2-9 to 2-11).

2. *Radiological Air Emissions from ISL Uranium Mining, and HRI's Air Emission Controls for Section 17*

During ISL uranium mining, two types of radiological air emissions can be released to the atmosphere: gaseous radon and airborne particulates of uranium (FEIS at 2-15).

Radon — a radiological gas product from the uranium decay chain — will be present in the pregnant lixiviant that HRI pumps from the ground (FEIS at 2-15). *See* Affidavit of Mark S. Pelizza at 4 (July 28, 2005) [hereinafter HRI Exhibit (Exh.) A] (“Uranium-238 decays to Thorium-234 decays to Protactinium-91 decays to Uranium-234 decays to Thorium-230 decays to Radium-226 decays to Radon-222”). HRI plans to minimize radon releases from the lixiviant to the atmosphere by employing a closed and pressurized well field and ion exchange system that is designed to keep the radon dissolved in the circulating lixiviant and contained in the ISL pumping system (FEIS at 2-15).

During mining operations, radon nonetheless will be released to the atmosphere on a controlled basis from three sources. First, HRI's pumping system will have relief valves located outdoors on the trunk pipelines. These relief valves will vent periodically to release excess vapor pressure resulting primarily from dissolution of carbon dioxide or oxygen in the circulating lixiviant. Radon will also be released during such venting. *See* FEIS at 2-15, 4-83.

Second, radon will be released when an ion exchange column is opened for resin elution — i.e., when the uranium oxide is chemically stripped from the resin (FEIS at 2-15). The radon released during this process will be no more than the amount dissolved in the discrete volume of lixiviant contained in the ion exchange column, and the radon will be vented through the ventilation system of the processing building (*ibid.*). Notably, the ion exchange columns that HRI will use for Section 17 mining operations are located adjacent to Section 17 on Section 8 (HRI Exh. A at 3). Accordingly, no radon will be released directly to the Section 17 atmosphere as a result of resin elution activities.

Third, radon will be released during the discharge of wastewater to retention ponds (FEIS at 2-15).² HRI will minimize the radon released during the discharge process by (*ibid.*): (1) removing radon from the wastewater in intermediate

² Wastewater is liquid waste resulting from the mining process. Its sources include water from filter washing and from the dewatering of uranium oxide slurry (FEIS at 2-12, 2-16). The largest wastewater stream at each mining site occurs as production bleed during mining operations (*id.* at 2-16), which, as mentioned *supra* p. 47, creates a reduced pressure in the mined region, thus controlling the horizontal spread of lixiviant and causing it to flow toward the production wells. HRI will discharge wastewater to retention ponds (*id.* at 2-12). The purpose of these ponds is “to store wastewater until treatment, promote evaporative loss of water which cannot be discharged to the environment, and maintain control of source and 11(e)(2) byproduct material found in the liquid effluents from solution mining” (*ibid.*).

holding tanks with a vacuum pump; (2) compressing the radon and dissolving it in the lixiviant injection system; and (3) recirculating the radon during mining operations. Notably, the wastewater processing equipment and ponds that HRI will use for Section 17 mining operations are located on Section 8 (HRI Exh. A at 3). Therefore, no radon will be released directly to the Section 17 atmosphere as a result of wastewater discharge activities.

As previously mentioned, ISL uranium mining can also release radiological air emissions in the form of airborne particulates of uranium. Such releases can occur during the yellowcake drying and packaging process (FEIS at 2-15). HRI plans to minimize the release of these particulates by using a vacuum-drying unit that “result[s] in zero emissions, and require[s] no ventilation from the drying chamber to the atmosphere” (*ibid.*; *see also id.* at 4-74). HRI’s license contains the following license condition to ensure environmentally safe operation of the vacuum-drying unit (License Condition (LC) 10.9):

The licensee shall ensure that the manufacturer-recommended vacuum pressure is maintained in the drying chamber during all periods of yellowcake drying operations. This shall be accomplished by continuously monitoring differential pressure and installing instrumentation which will signal an audible alarm if the air pressure differential falls below the manufacturer’s recommended levels. The alarm’s operability shall be checked and documented daily. Additionally, yellowcake drying operations shall be immediately suspended if any emission control equipment for the yellowcake drying or packaging areas is not operating within specifications for design performance.

HRI’s vacuum-drying unit will not be located at Section 17, but rather will be located about 20 miles northeast at the Crownpoint site (FEIS at 4-83). Hence, the drying and packaging process will not emit airborne particulates of uranium at Section 17 (*ibid.*).

B. Relevant Administrative Proceedings in This Case³

1. Phase I Administrative Proceedings

Because HRI plans to start its mining operations at Section 8, the former Presiding Officer — in an unpublished order issued in September 1998 — granted HRI’s request to bifurcate this litigation, focusing initially in Phase I on the Intervenor’s challenges relating to Section 8 and the overall validity of the

³This case is being litigated pursuant to the NRC’s since-superseded procedural rules in 10 C.F.R. Part 2, Subpart L, which were amended in 2004. *See* 69 Fed. Reg. 2182 (Jan. 14, 2004). Because the new rules apply only to proceedings noticed on or after February 13, 2004, they do not apply here.

license, leaving those issues relating to operations at the other three sites (Section 17, Unit 1, and Crownpoint) subject to later litigation in Phase II.

During Phase I, the Intervenor raised numerous challenges to the validity of HRI's license insofar as it authorizes mining operations at Section 8. For present purposes, however, the only challenges that need be recounted are those in which the then-Presiding Officer and the Commission addressed issues implicating radiological air emissions.

In May 1998, the former Presiding Officer accepted for litigation the area of concern that is germane to this proceeding, namely, the alleged "[i]nadequa[cy] of HRI's] air emissions control and the effect of recirculating radon in the mining solution" (LBP-98-9, 47 NRC 261, 282 (1998)).

In March 1999, the former Presiding Officer considered the Intervenor's assertion that HRI's operations at Section 8 would result in a radiation exposure, or total effective dose equivalent (TEDE),⁴ to members of the public that exceeded 0.1 rem in a year, in violation of 10 C.F.R. § 20.1301. *See* LBP-99-15, 49 NRC 261 (1999). Although the Intervenor recognized that background radiation is not included in the calculation of the TEDE (10 C.F.R. § 20.1301(a)(1)), they nevertheless argued that HRI's license to mine at Section 8 should be invalidated because "existing non-background levels of radiation at [Section 8 due to a nearby, shutdown underground uranium mine] already exceed regulatory limits, thus precluding the addition of a new source that would further jeopardize public health and safety" (49 NRC at 262).⁵ The Presiding Officer agreed with the Intervenor that the existing radiation from the old underground mine is properly viewed as nonbackground radiation that should be included in the TEDE calculation (*id.* at 267). He stated, however, that he needed additional information to determine whether HRI's operations at Section 8 would result in a TEDE that exceeded regulatory limits, and he therefore directed the parties to provide further briefing on several factual and legal matters (*id.* at 268-69).

After the parties provided the requested information, the former Presiding Officer considered whether, as the Intervenor argued, "HRI's operations at Church Rock Section 8 will cause the [TEDE] . . . to exceed the annual dose limit" (LBP-99-19, 49 NRC 421, 425 (1999)). In the course of his analysis, he reiterated his agreement with the Intervenor that radiation from the old underground mine is nonbackground radiation that should be included in the TEDE calculation, explaining that — pursuant to the regulatory definition of

⁴TEDE is defined as "the sum of the deep-dose equivalent (for external exposures) and the committed effective dose equivalent (for internal exposures)" (10 C.F.R. § 20.1003).

⁵As will be discussed *infra* Part III.A, the putative radiation at Section 8 that the Intervenor characterized as "nonbackground" allegedly emanated from an underground uranium mine on Section 17 that had been mined intermittently from the 1950s through 1982, and from surface waste and debris from those mining operations.

“background radiation” in 10 C.F.R. § 20.1003 — *all* source and byproduct materials (whether regulated by the Commission or not) should be excluded from “background radiation” and, hence, included in the TEDE calculation (*id.* at 426). He nevertheless concluded that the TEDE resulting from operations at Section 8 would not exceed the regulatory limits (*id.* at 427). The Commission denied the Intervenor’s request to review the decision (CLI-00-12, 52 NRC 1, 3 (2000)).

In October 2004, the then-Presiding Officer denied the Intervenor’s request that the FEIS be supplemented for Sections 8 and 17 based on a proposed housing development project that allegedly would be built about 2 miles from the southern restricted site boundary of Section 17 (LBP-04-23, 60 NRC 441 (2004)). In doing so, the Presiding Officer rejected the Intervenor’s argument that HRI had not demonstrated the efficacy of its radiological air emissions controls (*id.* at 457-58). The Commission denied the Intervenor’s request to review this decision (CLI-04-39, 60 NRC 657 (2004)).

2. Phase II Administrative Proceedings

The Intervenor now argue that HRI’s license to mine at Section 17 should be invalidated or amended, because: (1) the radiological air emissions from HRI’s mining operations at Section 17, combined with the radiation from the old underground mine and its surface waste and debris on Section 17, will result in a TEDE to the general public that exceeds 0.1 rem per year, in violation of 10 C.F.R. § 20.1301(a)(1); and (2) HRI’s license application for Section 17 contains incomplete data regarding its radiological air emissions calculations and controls. *See* Intervenor’s Written Presentation in Opposition to [HRI’s] Application for a Materials License with Respect to Radiological Air Emissions for Church Rock Section 17 (June 13, 2005) [hereinafter Intervenor’s Written Presentation]; Intervenor’s Reply to HRI’s and NRC Staff’s Responses in Opposition to Intervenor’s Presentation on Radioactive Air Emissions (Aug. 12, 2005) [hereinafter Intervenor’s Reply].

HRI and the NRC Staff responded to these challenges, arguing that: (1) HRI’s radiological air emissions from its mining operations at Section 17 will not exceed regulatory limits; and (2) HRI’s license application for Section 17 satisfies regulatory requirements regarding radiological air emissions calculations and controls. *See* HRI’s Response in Opposition to Intervenor’s Written Presentation Regarding Air Emissions (July 29, 2005) [hereinafter HRI’s Response]; NRC

Staff's Response to Intervenors' Presentation on Radiological Air Emissions (Aug. 5, 2005) [hereinafter NRC Staff's Response].⁶

For the reasons set forth below, I conclude that HRI has met its burden of demonstrating that the Intervenors' challenges relating to radiological air emissions at Section 17 do not provide a basis for invalidating or amending HRI's license.

III. ANALYSIS

A. There Is No Merit to the Intervenors' Claim That the TEDE Resulting from HRI's Licensed Operations at Section 17 Will Exceed the Regulatory Limit of 0.1 Rem per Year, 10 C.F.R. § 20.1301(a)(1)

Introduction

At the outset, it is helpful to identify some undisputed facts that are material to the parties' arguments. Section 17 contains three extant sources of radiological emissions: (1) natural surface soils containing (as nearly all soils do) trace amounts of uranium and/or thorium; (2) an old, underground uranium mine that was mined intermittently by several operators from the 1950s through 1982 [hereinafter the United Nuclear Corporation (UNC) mine] that, unless properly sealed, could be a source of radon gas emissions; and (3) surface waste and debris [hereinafter referred to as surface spoilage] from operations of the UNC mine.⁷ In addition, as discussed *supra* Part II.A.2, ISL mining operations on Section 17 can result in radiological air emissions in the form of radon and uranium air particulates. *See* NRC Staff Exh. 1, at 3, 5; Declaration of Melinda Ronca-Battista at 9 (June 10, 2005) [hereinafter Intervenors' Exh. K]; Intervenors' Exh. G at 1;

⁶ On December 7, 2005, each party — in compliance with an unpublished order dated November 15, 2005 — submitted a supplemental brief addressing several radiological air emissions issues. *See* Intervenors' Supplemental Brief on Radioactive Air Emissions (Dec. 7, 2005) [hereinafter Intervenors' Supplemental Brief]; HRI's Response to Presiding Officer's Request for Supplemental Information (Dec. 7, 2005) [hereinafter HRI's Supplemental Brief]; NRC Staff's Supplemental Brief (Dec. 7, 2005).

⁷ The record reveals that the uranium ore withdrawn from the UNC mine was not processed at Section 17, but was transported to the UNC milling site located on Section 2, more than 3 miles from the UNC mine. *See* Affidavit of Richard A. Weller at 2 (Aug. 5, 2005) [hereinafter NRC Staff Exh. 2]. The surface spoilage on Section 17 was caused by "hauling ore from the Section 17 UNC mine to the UNC mill [at Section 2]. Possible sources of contamination are the use of mine spoils in creating the road, and fugitive dust or rock lost from the haul trucks" (Affidavit of Christopher A. McKenney at 7-8 (Aug. 5, 2005) [hereinafter NRC Staff Exh. 1].

Affidavit of Dr. Douglas B. Chambers at 4, 6-7 (July 26, 2005) [hereinafter HRI Exh. B].⁸

A principal controversy in this case is which of the above four sources of radiological emissions should be included in the TEDE calculation or, stated differently, which of the above sources constitute background radiation that should be excluded from the TEDE calculation.

No one disputes that the first source — natural surface soils containing trace amounts of uranium and/or thorium — constitutes “background radiation” that is excluded from the TEDE calculation pursuant to 10 C.F.R. § 20.1301(a)(1). Accordingly, I need not examine that source further.

Likewise, no one disputes that the fourth source — radiological air emissions caused by HRI’s ISL mining operations at Section 17 — should be included in the TEDE calculation, because it constitutes a radiological emission “from the licensed operation” (10 C.F.R. § 20.1301(a)(1)). I consider the Intervenor’s challenges regarding HRI’s calculations and controls of those emissions *infra* Part III.B.

The parties vigorously disagree whether the radiological emissions from the second source (the underground UNC mine) and the third source (the surface spoilage from the UNC mining operations) should be included in the TEDE calculation. The Intervenor’s argue that (Intervenor’s Written Presentation at 12-22): (1) such emissions are not background radiation and should be included in the TEDE; (2) these existing emissions alone exceed the regulatory limit for the general public of 0.1 rem per year (10 C.F.R. § 20.1301(a)(1)); and (3) accordingly, HRI is barred from engaging in any mining operations at Section 17 because they would further increase the TEDE. In particular, the Intervenor’s claim that “levels of gamma radiation at the eastern fence of the Section 17 restricted area . . . [attributable to the UNC mine and/or its surface spoilage] equat[e] to an annual dose of 1.1 rems” (Intervenor’s Written Presentation at 19). They also allege that the annual dose “inside a fenced grazing area leased by Mr. Larry King, east of Section 17 . . . [attributable to the UNC mine and/or its surface spoilage] exceed[s] the regulatory limit” (*id.* at 19-20).

HRI and the NRC Staff, on the other hand, aver that the UNC mine has been sealed and therefore is not a source of radiological emissions. Further, they aver that radiological emissions from the surface spoilage should not be included in the TEDE calculation; rather, such emissions are properly viewed as radiation from naturally occurring radioactive material — i.e., background radiation — which is excluded from the TEDE. *See* HRI’s Response at 19-29; NRC Staff’s

⁸The witnesses in this proceeding accompanied their written testimony with credentials establishing their education, experience, and expertise. I find that these credentials qualify the witnesses as experts for purposes of this proceeding.

Response at 14-24. HRI and the Staff declare that the TEDE for Section 17, properly calculated, is a “small fraction of the regulatory limits” (FEIS at 4-83).

As explained below, I agree with HRI and the Staff. First, I find that undisputed record evidence shows that the UNC mine has been sealed and, accordingly, may be discounted as a source of radiological emissions for purposes of calculating the TEDE. Next, I conclude that the second sentence in the regulatory definition of “background radiation” (10 C.F.R. § 20.1003) does not require that radiation from the surface spoilage on Section 17 be excluded from background radiation. Third, I conclude that, pursuant to the first sentence in the regulatory definition of “background radiation” (*ibid.*), the surface spoilage is naturally occurring radioactive material whose emissions are background radiation that are excluded from the TEDE calculation (*id.* § 20.1301(a)(1)). Finally, I find that the TEDE resulting from HRI’s licensed operations on Section 17 does not exceed the regulatory limit of 0.1 rem per year embodied in section 20.1301(a)(1).⁹

1. Undisputed Record Evidence Shows That the UNC Mine Is Sealed and, Accordingly, Is Not a Source of Radiological Emissions for Purposes of Calculating the TEDE

The Intervenor claim that HRI’s license to perform ISL uranium mining at Section 17 should be invalidated, because in calculating the TEDE, HRI and the NRC Staff incorrectly failed to include radon emanating from vent holes in the UNC mine. *See* Intervenor’s Written Presentation at 16-18. However, whether such emissions must be included in the TEDE need not be adjudicated, because the record conclusively establishes that the UNC mine is sealed.¹⁰

⁹The NRC Staff argues (NRC Staff’s Response at 5-6) that the Intervenor is precluded from advancing an argument based on existing levels of radiological emissions at Section 17, because the Intervenor previously raised a concern about existing contamination at the Church Rock site, which the then-Presiding Officer found not to be germane. *See* LBP-98-9, 47 NRC at 283. The Staff’s argument lacks merit. The Intervenor’s previous concern related to the fact that HRI’s license application did “not address how existing contamination [at] the Church Rock site will be cleaned up” (*ibid.*). That concern, stated the Presiding Officer, was not germane, because “[u]nless there is some project-related reason, a licensee is not required to clean up problems that it did not create” (*ibid.*). That nongermane concern is materially different than the Intervenor’s present concerns, which include whether the TEDE, including HRI’s radiological air emissions, exceeds the limits in 10 C.F.R. Part 20. The Intervenor’s concern about radiological air emissions unquestionably is germane (*id.* at 282). To resolve whether the radiological air emissions at Section 17 will result in a TEDE that exceeds regulatory limits, it is necessary to determine what components must be included in the TEDE, which, in turn, requires resolving whether radiological emissions from the UNC mine and its surface spoilage are background radiation. The Intervenor is not precluded from raising these concerns.

¹⁰The Intervenor repeatedly characterize the underground material in the UNC mine as “byproduct material” (Intervenor’s Written Presentation at 16, 17). Because the mine is sealed and is not a

(Continued)

The record shows that the UNC mine contained four openings — the main shaft, a gravel hole, and two ventilation shafts (Affidavit of Salvador Chavez at 2 (July 27, 2005) [hereinafter HRI Exh. C]). Notably, the Intervenors concede that the UNC mine shafts (i.e., the main shaft and the gravel hole) “have been sealed” and are not a source of radiological emissions (Intervenors’ Written Presentation at 16 n.5). They also acknowledge that if the UNC mine vents are likewise sealed, their argument regarding radiological emissions from the vents would be moot (*ibid.*). But they assert that “[n]o evidence . . . has been presented that [the] vent holes” have been sealed (*ibid.*). The Intervenors are incorrect.

HRI’s witness, Salvador Chavez, stated that he supervised the sealing of all four mine openings in October and November of 1994 (HRI Exh. C at 2). As relevant here, Mr. Chavez provided a detailed description of how the vent shafts were sealed (*id.* at 2-3), and he also submitted photographs of the sealed shafts (Attachment 2 to HRI Exh. C). Another HRI witness, Mr. Pelizza, confirms that all UNC mine openings, including the ventilation shafts, “have been fully sealed” and “do not provide a conduit for radon emanation” (HRI Exh. A at 14).

The record thus negates the Intervenors’ assertion that the UNC mine is a source of radiological emissions for purposes of calculating the TEDE.

2. *Radiation from the Surface Spoilage on Section 17 Is Not Excluded from Background Radiation Pursuant to the Second Sentence of the Regulatory Definition of Background Radiation, 10 C.F.R. § 20.1003*

a. *The Second Sentence of the Regulatory Definition of Background Radiation, 10 C.F.R. § 20.1003, Excludes Radiation from Source Material and Byproduct Material That Are “Regulated by the Commission”*

The Intervenors claim that HRI’s license to perform ISL uranium mining at Section 17 should be invalidated, because in calculating the TEDE, HRI and the NRC Staff incorrectly failed to include radiological emissions from the surface spoilage on Section 17 (Intervenors’ Written Presentation at 12-22). An analysis of this claim begins with 10 C.F.R. § 20.1301, which establishes dose limits with which licensees must comply. Section 20.1301(a)(1) states in pertinent part that “[e]ach licensee shall conduct operations so that [t]he [TEDE] to individual

source a radiological emissions, the correctness *vel non* of the Intervenors’ characterization of the underground material is beside the point. I nevertheless note that “byproduct material” consists of “tailings or wastes” produced as a result of the *refining or processing* of ore primarily for its source material content (*infra* Part III.A.2.c). Material in the UNC mine was, and is, “ore in its natural form prior to any processing, such as grinding, roasting or beneficiating, or refining” (10 C.F.R. § 40.4) (definition of “unrefined and unprocessed ore”). Hence, the underground material in the UNC mine plainly does not satisfy the definition of “byproduct material.”

members of the public from the licensed operation does not exceed 0.1 rem . . . in a year, *exclusive of the dose contributions from background radiation*” (10 C.F.R. § 20.1301(a)(1) (emphasis added)).

Because “background radiation” is excluded from the TEDE calculation, determining the proper meaning and scope of that regulatory definition is critical. “Background radiation” is defined as (10 C.F.R. § 20.1003):

radiation from cosmic sources; naturally occurring radioactive material, including radon (except as a decay product of source or special nuclear material); and global fallout as it exists in the environment from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under the control of the licensee. “*Background radiation*” does not include radiation from source, byproduct, or special nuclear materials regulated by the Commission.

The parties disagree about the proper interpretation of the last sentence. The Intervenor urge me to adopt the analysis espoused by the former Presiding Officer during Phase I of this case. Specifically, relying on the canon of construction known as the “rule of the last antecedent,”¹¹ the Intervenor argue that the phrase “regulated by the Commission” refers only to the last antecedent noun in the series — i.e., “special nuclear materials” — and that radiation from *all* source and byproduct materials (whether regulated by the Commission or not) is excluded from background radiation (Intervenor’s Written Presentation at 12-13) (citing LBP-99-19, 49 NRC at 426). Pursuant to this regulatory definition, argue the Intervenor, surface spoilage from the UNC mine constitutes source and/or byproduct materials whose radiation is excluded from background radiation and, hence, must be included in the TEDE calculation (Intervenor’s Written Presentation at 15-18).¹²

HRI and the NRC Staff argue that the definition of background radiation advanced by the Intervenor (and accepted by the former Presiding Officer) is a serious misreading of the regulation, and that the phrase “regulated by the Commission” refers to all three antecedent nouns. *See* HRI’s Response at 16-18; NRC Staff’s Response at 11-13. Thus, according to HRI and the Staff, although

¹¹ Pursuant to the rule of the last antecedent, “qualifying words, phrases and clauses must be applied to the words or phrases immediately preceding them and are not to be construed as extending to and including others more remote.” *Demko v. United States*, 216 F.3d 1049, 1053 (Fed. Cir. 2000) (quoting *Wilshire Westwood Associates v. Atlantic Richfield Corp.*, 881 F.2d 801, 804 (9th Cir. 1989)).

¹² The Intervenor do not argue that the surface spoilage constitutes special nuclear material, nor could such an argument be reconciled with the definition of “special nuclear material” which includes plutonium, uranium-233, and enriched uranium (42 U.S.C. § 2014(aa); 10 C.F.R. § 20.1003). Accordingly, my analysis focuses exclusively on whether the surface spoilage constitutes source and/or byproduct materials within the meaning of “background radiation” (10 C.F.R. § 20.1003).

the regulatory definition of background radiation excludes radiation from source, byproduct, and special nuclear materials if they are regulated by the Commission, it does not exclude radiation from such materials if they are *not* regulated by the Commission. I agree.

The Intervenors, in relying on the rule of the last antecedent, fail to recognize that the last antecedent noun — i.e., “materials” — is *plural*, which indicates that it is the object of more than one precedent adjective. In other words, a fundamental rule of syntax supports the conclusion that the plural noun “materials” was meant to be the object of more than one precedent adjective. Because there is no differentiation among the three precedent adjectives, it may reasonably be concluded that “materials” was intended to be the object of them all — “source,” “byproduct,” and “special nuclear” — and that the qualifying phrase, “regulated by the Commission,” applies to them all.

This conclusion is supported by the regulatory definitions in 10 C.F.R. § 20.1003 of “source material,” “byproduct material,” and “special nuclear material” — which all use a singular form of the noun “material.” This regulatory evidence supports the conclusion that the Commission acted knowingly and deliberately when it used the plural form of “materials” in the definition of “background radiation,” intending it to be the object of the three precedent adjectives, “source,” “byproduct,” and “special nuclear.” This, in turn, indicates that — contrary to the Intervenors’ argument — the phrase “regulated by the Commission” was intended to apply to source and byproduct materials, as well as to special nuclear material.¹³

That the phrase “regulated by the Commission” does not apply solely to special nuclear material is also supported by the canon of construction that, where possible, a regulation should be construed in a manner that avoids internal inconsistencies. *See, e.g., United States v. Raynor*, 302 U.S. 540, 547 (1938); *Water Quality Ass’n Employees’ Benefit Corp. v. United States*, 795 F.2d 1303, 1307 (7th Cir. 1986); *Brotherhood of Locomotive Firemen and Enginemen v. Northern Pacific Railway Co.*, 274 F.2d 641, 646-47 (8th Cir. 1960). If, as the Intervenors assert, radiation from *all* source material (whether or not regulated by the Commission) is excluded from background radiation, then radiation from, for example, surface soils and outcrops containing naturally occurring uranium and thorium

¹³Notably, the Intervenors fail to provide any rationale as to why radiation from special nuclear material should be treated differently than radiation from source material or byproduct material for purposes of defining background or calculating the TEDE. In fact, they cite regulatory history that cuts in the other direction, because it shows “that the Commission’s purpose in adding the second sentence to the definition of ‘background radiation’ was to ensure that radioactive emissions from other NRC-licensed facilities [e.g., emissions from facilities possessing *materials regulated by the Commission*] would be counted in the TEDE” (Intervenors’ Supplemental Brief at 13) (citing 56 Fed. Reg. at 23,274). *See also* NRC Staff’s Supplemental Brief at 7.

would be excluded from background radiation. This would create an inconsistency with the first sentence in the regulatory definition of background radiation, which states that radiation from “naturally occurring radioactive material” is background radiation (10 C.F.R. § 20.1003).¹⁴ To harmonize these regulatory provisions, the definition of “background radiation” must be construed, on the one hand, as including “source material” that is not regulated by the Commission (i.e., “naturally occurring radioactive material”), and, on the other hand, as excluding “source material” that is regulated by the Commission. *See infra* Part III.A.2.b (discussing the distinction between regulated and unregulated source material).

In short, the interpretation advanced by the Intervenors lacks merit. Because the regulatory words “source, byproduct, [and] special nuclear materials” (10 C.F.R. § 20.1003) “are followed by a clause which is applicable as much to the first and other words as to the last, the natural construction of the language demands that the clause be read as applicable to all” (*Porto Rico Railway, Light & Power Co. v. Mor*, 253 U.S. 345, 348 (1920)).

The Intervenors also assert that this interpretation of the last sentence in the regulatory definition of “background radiation” — and more specifically, the conclusion that the phrase “regulated by the Commission” refers to source and byproduct materials — is barred by the “law of the case” doctrine. *See* Intervenors’ Written Presentation at 13-14; Intervenors’ Reply at 9-16. I disagree.

Pursuant to the law of the case doctrine — which is a rule of repose designed to promote judicial economy and jurisprudential integrity — the decision of an appellate tribunal should ordinarily be followed in all subsequent phases of that case, provided that the particular question in issue was “actually decided or decided by necessary implication” (*Safety Light Corp.* (Bloomsburg Site Decontamination), CLI-92-9, 35 NRC 156, 159-60 & n.5 (1992)). Here, the relevant appellate tribunal (i.e., the Commission) did not grant the Intervenors’ petition to review the former Presiding Officer’s decision (CLI-00-12, 52 NRC at 3), much less render a decision on the particular question in issue. Moreover, because the Intervenors alone sought review (*supra* p. 51), the correctness *vel non* of the former Presiding Officer’s regulatory interpretation of “background radiation” was not even brought to the Commission’s attention as a basis for

¹⁴ In this part of the Decision, I explain why radiation from the surface spoilage is not *excluded* from background radiation pursuant to the second sentence of the regulatory definition of “background radiation” (10 C.F.R. § 20.1003). In Part III.A.3 *infra*, I explain why such radiation is *included* in background radiation pursuant to the first sentence of the regulatory definition.

review, so it may not fairly be argued that the Commission even considered the issue. In short, the law of the case doctrine is not apposite here.¹⁵

That the law of the case doctrine is inapplicable here does not mean that the former Presiding Officer's analysis is perforce wholly without precedential value. *Cf. Sequoyah Fuels Corp.*, CLI-95-2, 41 NRC 179, 190 (1995) ("Licensing Board decisions . . . have no precedential effect beyond the immediate proceeding in which they were issued"). Rather, it means that the precedential value of his analysis is limited to its power to persuade. With due respect for the former Presiding Officer's reasoning, I am unpersuaded by his regulatory interpretation. For the reasons discussed above, I conclude that his analysis — which overlooked regulatory syntax, regulatory evidence, and regulatory structure — was incorrect, and I decline to follow it.

The Intervenor's nevertheless argue that I should apply the former Presiding Officer's regulatory interpretation "as a matter of policy" (Intervenor's Written Presentation at 22). They assert that its application here will (1) result in including radiation from the UNC mine's surface spoilage in the TEDE, which will (2) result in a TEDE that exceeds the regulatory limit, which will (3) result in the invalidation of HRI's license to perform ISL mining at Section 17. A contrary result, they argue, will pose a risk to public health and safety by ignoring the "cumulative impacts of past and concurrent uranium mining on nearby communities" (*ibid.*). I reject this argument for two reasons. First, as will be shown *infra* Part III.A.4, because the calculated TEDEs arising from HRI's licensed operations "are a small fraction of the regulatory limits" (FEIS at 4-83) and will have "negligible effects in terms of health physics and radiological impacts" (*id.* at 4-87), I am satisfied that HRI's operations will *not* be inimical to public health and safety (10 C.F.R. § 40.32(d)).

Second, and more fundamentally, I lack authority to adopt a "policy" that invalidates a Commission regulation. The second sentence of the regulatory definition of background radiation establishes that radiation from source and byproduct materials "regulated by the Commission" is excluded from background radiation, and, as will be shown *infra* Part III.A.3, the first sentence of the regulatory definition of background radiation establishes that radiation from "naturally occurring radioactive material" — such as the UNC mine's surface spoilage — is background radiation that, pursuant to 10 C.F.R. § 20.1301(a)(1), is excluded from the TEDE. In urging me to adopt an approach that is at odds with the governing regulations, the Intervenor's essentially are attempting to use this proceeding to rewrite those regulations. This they may not do. *See Baltimore Gas*

¹⁵Of course, the Commission's denial of review is not a decision on the merits. It simply indicates that the appealing party — here, the Intervenor's — "identified no 'clearly erroneous' factual finding or important legal error requiring Commission correction" (*Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-00-12, 52 NRC 1, 3 (2000)) (citing 10 C.F.R. § 2.786(b)(4)).

& *Electric Co.* (Calvert Cliffs Nuclear Power Plant), 4 AEC 243, 244 (1969); 10 C.F.R. § 2.335. To the extent that the Intervenor disagree with a regulation, their recourse is to petition the Commission for rulemaking to change it (10 C.F.R. § 2.802).

Contrary to the Intervenor's assertion, my resolution of this issue does not "turn a blind eye" to the radiological effects of past uranium mining and "condemn[] certain communities to be radiation sacrifice areas" (Intervenor's Written Presentation at 22-23). Nothing in my analysis relieves the NRC Staff of its obligation under the National Environmental Policy Act to conduct a cumulative impacts analysis, which requires it to take a hard look at the project's cumulative impacts on radiation levels. If the Staff determines that the cumulative radiological impacts of a license applicant's proposed project will be inimical to the public health and safety, it must take steps to address those impacts by imposing license conditions that avoid such harm, or, if such mitigating measures would be unavailing, deny the license application.

Notably, during Phase I of this proceeding, the Commission expressly considered whether the Staff adequately performed the cumulative radiological impacts analysis for mining operations at Section 8, and it resolved this question in the affirmative (*Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 60-61 (2001)). The Commission explained (*id.* at 61-62):

Cumulative impacts analysis looks to whether the impacts from a proposed project will combine with the existing, residual impacts in the area to result in a significant "cumulative" impact — where, in other words, the new impact is significantly enhanced by already existing environmental effects. The Intervenor simply have not credibly suggested how the relatively minor radiological impact of Section 8 will in fact prove significant even when added to already existing radiological conditions. They have not cast doubt on the FEIS's conclusion that the Church Rock Section 8 mining will make only a minor, insignificant addition to overall preexisting radiological impacts.

Similarly, as will be discussed *infra* Part III.A.4, the Section 17 mining operations "will make only a minor, insignificant addition to overall preexisting radiological impacts" (*id.* at 62), thus posing no significant threat to public health and safety.¹⁶

¹⁶ As a factual backdrop, the national average dose received by an individual due to background radiation is 0.3 rem per year (NUREG-1501, "Background as a Residual Radioactivity Criterion for Decommissioning" (HRI Annex C) at 28, 30 (Aug. 1994) (Draft Report)). However, annual doses can vary significantly from that figure. For example, the record shows that a person living on sandy soil near the ocean might receive an annual background dose of about 0.1 rem, whereas a person living in a mountainous area in Colorado might receive an annual background dose of about 1.0 rem. This range of 0.1 rem to 1.0 rem — a span factor of 10 — "is typical of the variation in background doses for
(Continued)

b. The Surface Spoilage on Section 17 Is Not Source Material Regulated by the Commission, and Its Radiation Is Therefore Not Excluded from Background Radiation Pursuant to the Last Sentence of the Regulatory Definition of Background Radiation, 10 C.F.R. § 20.1003

Having determined that “background radiation” — which is not included in the TEDE calculation — excludes radiation from source material regulated by the Commission, the next question is whether the surface spoilage on Section 17 is source material regulated by the Commission. The Intervenor’s argue that this question must be answered in the affirmative, and, accordingly, that the radiation emanating from the spoilage must be included in the TEDE calculation (Intervenor’s Written Presentation at 15-21). HRI and the NRC Staff argue contrarily that the surface spoilage is not source material regulated by the Commission, and it is therefore not excluded from background radiation (HRI’s Response at 19-21; NRC Staff’s Response at 15-20). For the reasons discussed below, I agree with HRI and the NRC Staff.

In determining whether the surface spoilage on Section 17 is source material regulated by the Commission, I turn first to the Atomic Energy Act (AEA), where Congress stated that the “processing and utilization of source . . . material must be regulated in the national interest and in order to provide for the common defense and security and to protect the health and safety of the public” (42 U.S.C. § 2012(d)). Congress defined “source material” as follows (*id.* § 2014(z)):

The term “source material” means (1) uranium, thorium, or any other material which is determined by the Commission pursuant to the provisions of section 61 to be source material; or (2) ores containing one or more of the foregoing materials, in such concentration as the Commission may by regulation determine from time to time.

Consistent with the above statutory definition, the Commission promulgated the following definition of “source material”:

most United States citizens in a given year” (*id.* at 30; *accord* HRI’s Supplemental Brief, Exh. A at 3). Moreover, this broad range itself is subject to variation, because the cosmic component of background radiation can vary by 10% over the 11-year solar cycle, and sporadic geophysical phenomena — such as volcanic eruptions, earthquakes, and floods — can contribute significant additional background doses to the environment (HRI’s Supplemental Brief, Exh. A at 3). Assuming *arguendo* the correctness of the Intervenor’s assertion that the “levels of gamma radiation at the eastern fence of the Section 17 restricted area . . . equat[e] to an annual dose of 1.1 rems” (Intervenor’s Written Presentation at 19), such a background dose does not substantially differ from the “typical [range of] background doses for most United States citizens in a given year” (HRI Annex C at 30). Equally important for present purposes, pursuant to the governing regulations, such a background dose is excluded from the TEDE calculation (*see infra* Part III.A.3).

- (1) Uranium or thorium or any combination of uranium and thorium in any physical or chemical form; or
- (2) Ores that contain, by weight, one-twentieth of 1 percent (0.05 percent), or more, of uranium, thorium, or any combination of uranium and thorium. Source material does not include special nuclear material.

10 C.F.R. § 20.1003; *accord id.* § 40.4.

It is undisputed that the surface spoilage on Section 17 contains uranium “in any physical . . . form” and thus falls within the first definitional category of “source material” (10 C.F.R. §§ 20.1003, 40.4). Notably, however, not all source material is regulated by the Commission. I conclude that the surface spoilage is source material that is not regulated by the Commission for two reasons.¹⁷

First, the surface spoilage from the UNC mine is exempt from the licensing requirements of Part 40 pursuant to the regulatory provision that renders licensing unnecessary for “unimportant quantities of source material” (10 C.F.R. § 40.13). The Commission’s authority to promulgate this regulation stems from the AEA, which states that a license is not required “for quantities of source material which, in the opinion of the Commission, are unimportant” (42 U.S.C. § 2092). Pursuant to this statutory grant of discretion, the Commission has stated that a license is not required for the possession of ore “in which the source material is by weight less than one-twentieth of 1 percent (0.05 percent) of the [ore]” (10 C.F.R. § 40.13(a)), which “is equivalent to material having uranium concentrated in it at a value of 500 parts per million (ppm)” (NRC Staff Exh. 1, at 5). Because the instant record shows “no materials present on the ground surface of Section 17 exceeding the 500 ppm uranium threshold” for licensable source material (*id.* at 6; *accord* HRI Exh. A at 13, 16), I conclude that the surface spoilage from the UNC mine is not source material regulated by the Commission.

Moreover, the surface spoilage is not source material regulated by the Commission for a second, alternative reason. Pursuant to 10 C.F.R. § 40.13(b), a person is exempt from Part 40 licensing requirements “to the extent that such person receives, possesses, uses, or transfers *unrefined and unprocessed ore* containing source material” (10 C.F.R. § 40.13(b)) (emphasis added). “Unrefined and unprocessed ore” is defined as “ore in its natural form prior to any processing, such as grinding, roasting or beneficiating, or refining” (*id.* § 40.4). The undisputed record establishes that the surface spoilage on Section 17 — which consists of mine spoils used to create roads, and fugitive dust or rock lost from the haul trucks transporting uranium ore to an offsite milling facility on Section 2 (*supra*

¹⁷The parties do not raise an issue about the proper definition of the phrase “regulated by the Commission.” Rather, they seem to agree that source material is regulated by the Commission if possession of the material requires a license from the Commission. For present purposes, I accept that definition.

note 7) — is unrefined and unprocessed ore from the UNC mine. Accordingly, the surface spoilage is not source material regulated by the Commission.

There is thus no tenable legal or factual basis for concluding that the surface spoilage on Section 17 constitutes source material regulated by the Commission whose radiation should be excluded from background radiation. Rather, as will be discussed in greater detail *infra* Part III.A.3, this material constitutes “naturally occurring radioactive material” whose radiation is included in background radiation and, therefore, is excluded from the TEDE calculation.¹⁸

c. The Surface Spoilage on Section 17 Is Not Byproduct Material, and Its Radiation Is Therefore Not Excluded from Background Radiation Pursuant to the Last Sentence of the Regulatory Definition of Background Radiation, 10 C.F.R. § 20.1003

The Intervenors also argue (Intervenors’ Written Presentation at 15-22) that the surface spoilage on Section 17 is “byproduct material” whose radiation must be excluded from background radiation (and, hence, included in the TEDE calculation) pursuant to the last sentence of the regulatory definition of “background radiation” (10 C.F.R. § 20.1003). HRI and the NRC Staff disagree. *See* HRI’s Response at 19-21; NRC Staff’s Response at 18-20.¹⁹

Once again, the starting point for determining whether the surface spoilage is byproduct material is the AEA, which provides, in pertinent part, the following definition of “byproduct material” (42 U.S.C. § 2014(e)):

The term “byproduct material” means (1) any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material; (2) the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content

¹⁸The Intervenors assert that the record is “barren” regarding the existence of source material at Section 17 (Intervenors’ Written Presentation at 16). They argue that “HRI should make clear whether there is source material within . . . Section 17 [and after] HRI provides this information, Intervenors should be given the opportunity to challenge HRI’s data and information” (*ibid.*). For the reasons stated above in text, I find that ample record evidence supports the conclusion that the surface spoilage is *not* source material regulated by the Commission.

¹⁹Because the surface spoilage on Section 17 plainly is not byproduct material pursuant to the regulatory definition, it is not necessary to distinguish between byproduct material that is and is not regulated by the Commission (assuming *arguendo* that the latter category of byproduct material even exists). *Cf.* HRI’s Response at 17 (“there cannot be . . . byproduct . . . material which is not regulated by the Commission”).

Because the Intervenor's argument that surface spoilage on Section 17 is "byproduct material" relies solely on the second definitional prong, my analysis will focus exclusively on that prong.

Consistent with the above statutory definition, the Commission defines "byproduct material" in pertinent part as "[t]he tailings or wastes produced by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content" (10 C.F.R. § 20.1003; *accord id.* § 40.4).

The Intervenor's assertion that surface spoilage on Section 17 "falls squarely under the definition of byproduct material" (Intervenor's Written Presentation at 16-17), because it constitutes "tailings or wastes produced by the extraction or concentration of uranium" (10 C.F.R. § 20.1003). The Intervenor's are incorrect.

The Intervenor's assertion ignores that for "tailings or wastes" to fall within the definition of byproduct material, the plain statutory and regulatory language requires that such tailings or wastes be "produced" from ore that has been "processed" for its source material content (42 U.S.C. § 2014(e)(2); 10 C.F.R. § 20.1003). *See also* 57 Fed. Reg. 20,525 (May 13, 1992) ("[f]or the tailings and waste . . . to qualify as 11e(2) byproduct material, the ore must be processed primarily for its source-material content"). In other words, byproduct material occurs as a result of a *processing* activity that *extracts* uranium from ore or otherwise renders the uranium ore into a purer state of uranium. *See* 10 C.F.R. § 40.4 (defining "unrefined and unprocessed ore" as "ore in its natural form prior to any processing, such as grinding, roasting or beneficiating, or refining"); *cf.* 42 U.S.C. § 7911(8) & 40 C.F.R. § 192.01(m) (Uranium Mill Tailings Radiation Control Act of 1978 and EPA regulation define "tailings" as "the remaining portion of a metal-bearing ore after some or all of such metal, such as uranium, has been extracted").²⁰

Undisputed record evidence establishes that Section 17 contained no processing or milling facility. Thus, uranium ore from the UNC mine was *not* processed on Section 17. It was hauled from Section 17 to the offsite UNC mill located more than 3 miles away on Section 2. *See* NRC Staff Exh. 1, at 6 ("no refining or processing of ore ever took place on Section 17"); *accord supra* note 7. Because the surface spoilage on Section 17 is unprocessed and unrefined uranium ore, it does not fall within the definition of byproduct material. *See* NRC Staff Exh. 2,

²⁰ Uranium ore from a conventional mine is refined and processed at a milling facility, which is a chemical plant that extracts uranium from the ore. Generally, the ore arrives via truck at the facility, where it is crushed, then leached with sulfuric acid or alkaline. Conventional mills extract 90 to 95% of the uranium from the ore. The solid (sandy) portion from the milling process is called mill tailings or wastes, which contain residual uranium and its progeny. To provide for the disposal, long-term stabilization, and control of mill tailings in a safe and environmentally sound manner, Congress enacted the Uranium Mill Tailings Radiation Control Act of 1978, 42 U.S.C. §§ 7901 *et seq.* *See generally* *Kerr-McGee Chemical Corp. v. NRC*, 903 F.2d 1, 2-4 (D.C. Cir. 1990).

at 2-4 (Section 17 “never contained byproduct materials [because ore from the] Section 17 mine was sent to the UNC mill [on Section 2] for processing”).

Because the surface spoilage on Section 17 is not byproduct material, its radiological emissions need not be excluded from background radiation pursuant to the last sentence of the regulatory definition of “background radiation” (10 C.F.R. § 20.1003).

For the same reason, there is no merit to the Intervenor’s claim that evaporation pond sludge at Section 17 is byproduct material whose radiation must be excluded from background radiation (Intervenors’ Written Presentation at 16). The ponds to which the Intervenor refers are the “mine dewatering ponds typically used at non-ISL underground uranium mines as surface storage areas to keep the mines free from excess water” (NRC Staff Exh. 2, at 4). The putative mine waste contained in the pond sludge was not byproduct material, because, like the surface spoilage on Section 17, it was not the product of a processing activity. In any event, the record shows that the “[m]ine waste — in the form of radium 226 contained in pond sludge — was removed from the ponds more than ten years ago and was disposed of off-site” (*ibid.*; accord HRI Exh. A at 16).

In sum, there is no tenable legal or factual basis for concluding that Section 17 contains byproduct material whose radiation should be excluded from background radiation.²¹

3. *The Surface Spoilage on Section 17 Is “Naturally Occurring Radioactive Material” Whose Radiation Is Excluded from the TEDE Calculation*

That radiological emissions from the surface spoilage on Section 17 are not excluded from background radiation pursuant to the last sentence of the regulatory definition of background radiation does not affirmatively establish that such emissions are part of background radiation and, hence, excluded from the TEDE calculation. To determine the validity of that proposition, I turn first to 10 C.F.R. § 20.1301(a)(1), which sets radiological dose limits for the general public that NRC licensees must meet, and which provides that each licensee shall conduct operations so that:

The [TEDE] to individual members of the public from the licensed operation does not exceed 0.1 rem . . . in a year, exclusive of the dose contributions from

²¹ The Intervenor opines that “[i]t would be a strange regulatory regime that permitted an owner to sell land with tailings . . . to another owner, who would be allowed to treat this preexisting condition as background radiation” (Intervenors’ Written Presentation at 24) (quoting LBP-99-15, 49 NRC at 267). Although the Intervenor’s statement is true, it is also quite beside the point, because, as shown above, Section 17 contains no tailings.

background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released under § 35.75, from voluntary participation in medical research programs, and from the licensee's disposal of radioactive material into sanitary sewerage in accordance with § 20.2003

Section 20.1301(a)(1) thus requires a licensee to ensure that the TEDE “to individual members of the public from the licensed operation” does not exceed 0.1 rem per year “exclusive of the dose contributions from background radiation” and other specified sources (10 C.F.R. § 20.1301(a)(1)). Significantly, the phrase “from the licensed operation” appears to serve as a limitation on what is to be included in the TEDE calculation. Because any radiation from the surface spoilage is wholly unrelated to HRI’s licensed ISL mining operation, it follows — from the plain regulatory language — that such radiation is not included in the TEDE calculation. *See* NRC Staff’s Response at 20; NRC Staff’s Supplemental Brief at 2-3, 6-7.²²

A further limitation on the TEDE calculation imposed by section 20.1301(a)(1) is that it does not include “background radiation.” The first sentence of the regulatory definition of that term (10 C.F.R. § 20.1003) states that background radiation is radiation from: (1) “cosmic sources”; (2) “naturally occurring radioactive material, including radon (except as a decay product of source or special nuclear material)”; and (3) global fallout “from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under the control of the licensee.” HRI and the NRC Staff argue that the surface spoilage on Section 17 is “naturally occurring radioactive material” whose radiation is background radiation that, pursuant to 10 C.F.R. § 20.1301(a)(1), is excluded from the TEDE calculation. HRI’s Response at 19-21; NRC Staff’s Response at 20-22. I agree.²³

Neither the AEA nor Commission regulations define the term “naturally occurring radioactive material.” However, the parties have submitted record evidence that, for present purposes, provides an adequate definition of that term.²⁴

²²I decline to base this Decision exclusively on this rationale, because it essentially renders the remaining portion of the regulation — which specifies several categories of radiation dose contributions that are to be excluded from the TEDE calculation (some of which plainly are not related to the licensed operation) — unnecessary. I therefore proceed with an analysis that inquires whether radiation from the surface spoilage is background radiation that is excluded from the TEDE.

²³My analysis here is limited to surface spoilage on Section 17, because, as explained *supra* Part III.A.1, the UNC mine is sealed and is not a source of radiological emissions.

²⁴Because the term “naturally occurring radioactive material” lacks a statutory or regulatory definition, I construe it in accord with its “‘ordinary or natural’ meaning” (*Smith v. United States*, 508 U.S. 223, 228 (1993)), which, as discussed above, is informed by regulatory and industry usage and practice.

The term “naturally occurring radioactive material,” or NORM, is accorded a broad, commonsensical meaning. It consists of materials that contain primordial radioisotopes (e.g., uranium and its progeny) which are present naturally in rocks, soils, water, and minerals, and that are not regulated by the Commission. *See* NRC Staff Exh. 6, at 2; NRC Staff Exh. 8, at 3. This broad definition of NORM includes radioactive materials that are undisturbed in nature, as well as radioactive materials that, as a result of human activities, are no longer in their natural state. For example, NORM includes the following industrial wastes that are not regulated by the Commission (NRC Staff Exh. 6, at 3 & Attachment 4): uranium mining overburden, phosphate waste, water treatment waste, petroleum production waste, mineral processing waste, and geothermal energy production waste.²⁵

Around 1998, as a result of regulatory and industry practice, the subset of NORM whose radionuclides have become concentrated and/or exposed as a result of human activities became known as “technologically enhanced naturally occurring radioactive materials,” or TENORM. *See* NRC Staff Exh. 8, at 3 & n.1. The National Academy of Sciences (NAS) defines TENORM as “any naturally occurring material not subject to regulation under the Atomic Energy Act whose radionuclide concentrations or potential for human exposure have been increased above levels encountered in the natural state by human activities” (*id.* at 3) (quoting National Research Council of the [NAS] and National Academy of Engineering, “Evaluation of Guidelines for Exposures to [TENORM],” at 19 (1999)).

In a June 2000 report to Congress, the United States Environmental Protection Agency (EPA) endorsed NAS’s definition of TENORM, and it further described TENORM as follows (NRC Staff Exh. 8, at 2):

TENORM . . . [is] not subject to regulation under the Atomic Energy Act . . . [and consists of] material containing radionuclides that are present naturally in rocks, soils, water, and minerals and that have become concentrated and/or exposed to the accessible environment as a result of human activities such as manufacturing, water treatment, or [conventional] mining operations.

The surface spoilage on Section 17 plainly falls within the definition of TENORM, because it is “material containing radionuclides that are present

²⁵In 1986, the Commission issued a proposed rule that defined “natural background exposure” as “exposure to cosmic and terrestrial sources of [NORM], including technologically enhanced radioactive material, such as plasterboard and fertilizer” (51 Fed. Reg. 1092 (Jan. 9, 1986)). Although this definition did not appear in the final rule (*see* 56 Fed. Reg. 23,260 (May 21, 1991)), it illustrates that the Commission long has viewed NORM as including radioactive materials that, as a result of human activities, are no longer in their natural state.

naturally in rocks . . . and that have become concentrated and/or exposed to the accessible environment as a result of . . . [conventional] mining operations” (NRC Staff Exh. 8, at 2). Because the surface spoilage is TENORM (which is a subset of NORM), its radiation is background radiation that is excluded from the TEDE calculation pursuant to 10 C.F.R. § 20.1301(a)(1).²⁶

The Intervenor argues that the surface spoilage is not NORM (or its subset, TENORM), because the surface spoilage is under the control of HRI, and the definition of “background radiation” indicates that background radiation emanates only from material that is “not under the control of the licensee” (Intervenor’s Supplemental Brief at 16). The Intervenor is incorrect. The phrase “not under the control of the licensee” was added in 1997 when the Commission amended the definition of “background radiation” to include fallout from past nuclear accidents such as Chernobyl (62 Fed. Reg. 39,058, 39,087 (July 21, 1997)). As the NRC Staff correctly points out (NRC Staff’s Supplemental Brief at 13-14), the regulatory history of this amendment indicates that the phrase “not under the control of the licensee” was intended only to apply to Chernobyl-like fallout, not to the antecedent phrase “naturally occurring radioactive materials.” See 59 Fed. Reg. 43,200, 43,217 (Aug. 22, 1994).

The Intervenor also argues that, even if the surface spoilage is NORM, the radiation from radon emanating from the surface spoilage must be excluded from background radiation and included in the TEDE calculation. See Intervenor’s Supplemental Brief at 6-7. This is so, they assert, because “background radiation” is defined as “[NORM], including radon (*except as a decay product of source or special nuclear material*)” (10 C.F.R. § 20.1003) (emphasis added). The NRC Staff argues contrarily that the parenthetical excepts only radon that is a decay product of source and special nuclear materials that are regulated by the Commission, and the surface spoilage does not fall into that category because it contains source material that is *not* regulated by the Commission. See NRC Staff’s Supplemental Brief at 10-13. I am persuaded by the Staff’s argument.

The regulatory history of the radon parenthetical indicates that the Commission intended to include “ambient radon levels” within the definition of “background radiation.” See 56 Fed. Reg. 23,360, 23,365 (May 21, 1991). To interpret the radon parenthetical as applying to radon from *all* source and special nuclear materials would essentially exclude “all radon” from background radiation (NRC Staff’s Supplemental Brief at 13), thus negating the Commission’s stated purpose of including radiological emissions from “ambient radon” in background

²⁶There is also legislative support for the conclusion that TENORM is a subset of NORM. For example, in a conference report directing EPA to arrange for NAS to conduct a study examining the basis for EPA’s guidance on TENORM, the conferees stated that “indoor radon” — which is the result of human activities (i.e., construction) and, thus, constitutes TENORM — is an example of NORM. See NRC Staff Exh. 8, at 4 (quoting H.R. Rep. No. 104-384, at 77 (1995)).

radiation. This I decline to do. *Cf. Exxon Nuclear Co.* (Nuclear Fuel Recovery and Recycling Center), ALAB-447, 6 NRC 873, 878 (1977) (“[i]t is an elementary canon of construction that we ‘cannot interpret federal statutes to negate their own stated purposes’”) (quoting *New York State Department of Social Services v. Dublino*, 413 U.S. 405, 419-20 (1973)). The Intervenor’s interpretation is also flawed as a matter of common sense, because it imputes to the Commission an intent to create a schizophrenic rule that simultaneously includes and excludes ambient radon as NORM. *Cf. Treadway v. Gateway Chevrolet Oldsmobile Inc.*, 362 F.3d 971, 976 (7th Cir. 2004) (nonsensical statutory interpretations are disfavored because legislators are unlikely to draft such statutes).²⁷

In sum, I conclude that the surface spoilage is NORM (or more precisely, TENORM) that emits background radiation (10 C.F.R. § 20.1003), which is excluded from the TEDE calculation pursuant to 10 C.F.R. § 20.1301(a)(1).²⁸

4. *Because Radiation from the Surface Spoilage Is Background Radiation That Is Excluded from the TEDE Calculation, the Record Conclusively Establishes That the TEDE for Section 17 Does Not Exceed the Regulatory Limit*

The fact that the radiation from the surface spoilage is NORM (or its subset, TENORM) and hence, must be excluded from the TEDE calculation, fatally undercuts the Intervenor’s challenge to the TEDE calculation. A critical premise

²⁷The NRC Staff correctly observes that the radon parenthetical must be read as “not including all source material. Otherwise, the exception will swallow the rule” (NRC Staff’s Supplemental Brief at 11). Rather, the parenthetical establishes that “only radon that is a decay product of NORM is to be considered NORM [and] radon as a decay product of materials that are regulated by the Commission, and thus are not NORM, is to be excepted from . . . background radiation” (*id.* at 13). *Accord* NUREG-1736, “Consolidated Guidance: 10 C.F.R. Part 20 — Standards for Protection Against Radiation, Final Report,” at 3-8 (Oct. 2001) (explaining how radon exposure to a licensee’s employee from source material that is NORM (e.g., radon emanating from the ground into a workplace basement) is considered background radiation that is not subject to NRC regulation, whereas radon exposure from source material that is regulated by the Commission (e.g., radon emanating from a licensed uranium source stored near the workplace) is subject to NRC regulation).

²⁸The Intervenor’s repeatedly argue that radiation from the surface spoilage cannot be background radiation, because background radiation does not include radiation sources that are the direct or indirect result of human activity (e.g., Intervenor’s Written Presentation at 20 n.9, 22 n.11; Intervenor’s Supplemental Brief at 5, 6, 7). The manifest fallacy of this argument is evinced by: (1) the regulatory definition of “background radiation,” which explicitly includes “global fallout” from the “testing of nuclear explosive devices” and from “nuclear accidents such as Chernobyl” (10 C.F.R. § 20.1003); and (2) the accepted definition of NORM (whose radiation is background radiation (*ibid.*)), which includes “material containing radionuclides that are present naturally in rocks, soils, water, and minerals and that have become concentrated and/or exposed to the accessible environment as a result of human activities such as manufacturing, water treatment, or [conventional] mining operations” (NRC Staff Exh. 8, at 2). *See also supra* notes 25-26 and accompanying text.

underlying their TEDE challenge is that radiation from the surface spoilage must be included in the TEDE calculation, and that such radiation — by itself — already exceeds regulatory limits. *See, e.g.*, Intervenors’ Written Presentation at 18 (“[HRI’s license for ISL mining on Section 17 should be revoked because the] existing levels of radiation at Section 17 [from the UNC mine and its spoilage] are currently above regulatory limits”); *id.* at 21 (“radiation [on Section 17 from extant material associated with the UNC mine], which under NRC regulations must be included in TEDE, exceeds regulatory exposure limits”); *ibid.* (“[b]ecause existing radiation levels at Section 17 already exceed regulatory limits, HRI’s license for Section 17 should be revoked”).

The Intervenors’ argument that the TEDE calculation on Section 17 exceeds the regulatory limits collapses by its own terms once it is determined that radiation from the surface spoilage is background radiation that is not included in the calculation. As HRI’s expert, Mr. Pelizza, explains (HRI Exh. A at 12) (emphasis in original):

The concern over radiological impacts by HRI’s operations is unfounded The only radiological air effluent at [Section 17] during operations would be radon (FEIS at 4-82). The FEIS describes the . . . evaluation of radiological impacts at various boundary receptor points and the closest *downwind* residence (FEIS Figure 4.5), concluding that: “The calculated exposures and potential concentrations, with emission controls, are a small fraction of the regulatory limit” (FEIS at 4-83), and that: “The proposed project would have negligible effects in terms of health physics and radiological impacts” (FEIS at 4-87).

Moreover, the record shows that the radon emissions controls for Section 17 “reduce the airborne concentration by approximately a factor of 10” (HRI Exh. A at 11-12) (citing FEIS Table 4.24). The resulting radiological exposure levels “at the nearest residence are approximately 0.5 percent and 7.6 percent of the limit, *with* and *without* the emissions controls, respectively” (HRI Exh. A at 12) (emphasis in original). “In other words, the FEIS concludes that even without emission controls, at the closest residence the calculated exposures would only be 7.6 percent of the limit” (*ibid.*). *Accord* HRI Exh. B at 10-11 (Dr. Chambers declares his agreement with the TEDE calculations in the FEIS, and states that the doses “are inconsequential in comparison to the dose from natural background” and the “gamma dose[s] to nearby residents outside of [the] licensed site 17 operation are extremely small both on [an] absolute basis and by comparison to natural background and of no significance”); NRC Staff Exh. 1, at 13 (Mr. McKenney declares his agreement with the FEIS that the calculated exposures at the nearest residence resulting from HRI’s operations at Section 17 “are a small fraction of the regulatory limits”).

The Intervenor offers no evidence casting any doubt on the above FEIS determinations. I therefore conclude that HRI has demonstrated by a preponderance of the evidence that the TEDE for Section 17, including radiological air emissions relating to HRI's licensed operations, does not exceed the regulatory limit.²⁹

B. There Is No Merit to the Intervenor's Claim That HRI's Application Is Inadequate with Regard to Radiological Air Emissions at Section 17

Introduction

The Intervenor also argues that HRI's license for Section 17 is invalid "because the information HRI submitted with respect to radioactive air emissions at Section 17 is insufficient for the Staff to have made a determination about . . . health and safety impacts" (Intervenor's Written Presentation at 24). Specifically, the Intervenor claims that HRI's license application is deficient in the following respects (*ibid.*): (1) HRI failed to supply site-specific source term data for radiological air emissions for its proposed operations at Section 17; (2) HRI failed to supply site-specific meteorological information for Section 17; (3) HRI failed to account for nearby family residences at Section 17 when calculating TEDEs for Section 17 receptors; and (4) HRI provided no technical documentation for its pressurized air effluent control system. HRI and the NRC Staff respond that the Intervenor's arguments lack merit. *See* HRI's Response at 31; NRC Staff's Response at 24-26.

As discussed below, I conclude that the Intervenor's arguments are insubstantial.

1. HRI's Source Term Data Is Adequately Protective of Public Health and Safety

The Intervenor correctly states that the only significant radiological air emission resulting from HRI's licensed operations at Section 17 will be radon, which will be released from two sources: (1) the ion exchange columns at the satellite facility on Section 8 when the uranium oxide is stripped from the resin; and (2) the pressure relief valves on the well field trunk lines at Section 17 that will

²⁹The Intervenor observes that the "Navajo Nation Council recently passed the Diné Natural Resources Protection Act," which "bans all uranium mining and processing, including ISL mining, within Navajo Indian Country" (Intervenor's Written Presentation at 23 & n.13). The potential impact of this Act on HRI's ultimate ability to engage in ISL uranium mining in Navajo Indian Country is beyond the scope of this proceeding. Nevertheless, pursuant to the terms of its license, HRI will be required to ensure its operations do not run afoul of this Act prior to commencing operations. *See* LC 9.14.

vent periodically during mining operations. *See* Intervenors' Written Presentation at 25 (citing FEIS at 4-82 to 4-83). The Intervenors assert, however, that HRI improperly calculated the "[p]rojected doses to individuals exposed to [this] radon" (Intervenors' Written Presentation at 25). To reliably determine the TEDE, argue the Intervenors, HRI should have used site-specific source data — i.e., dissolved radon concentrations in groundwater at Section 17. Instead, HRI relied on dissolved radon concentrations in groundwater from Unit 1, which is approximately 20 miles northeast of Section 17 and which, allegedly, is not representative of the Section 17 groundwater. The Intervenors argue that HRI's failure to use site-specific information renders the TEDE calculations untrustworthy, and, accordingly, its license for Section 17 mining operations is invalid (*id.* at 25-28) (citing Declaration of Bernd Franke (June 12, 2005) [hereinafter Intervenors' Exh. L]).

HRI responds that it acted reasonably in using radon concentration in groundwater from Unit 1 to calculate the TEDE for Section 17 operations (HRI's Response at 32). HRI's expert, Mr. Pelizza, states that radon emissions "are directly dependent upon the amount of uranium" (HRI Exh. A at 4), and because the concentrations of underground uranium ore at Unit 1 and Section 17 are substantially identical, the radon concentrations in the groundwater at Unit 1 and Section 17 can likewise be predicted to be substantially identical. Mr. Pelizza explains:

Both Section 17 and Unit 1 are redistributed natural uranium ore (roll fronts) of similar grade/thickness, similar width . . . [and] similar age. . . . [T]here is no technical reason to assume that radon from concentrations of uranium ore at Section 17 will be significantly different than at Unit 1 unless there is a corresponding difference in the quality of uranium in the ore[, and there] is not. . . . [A] review of the average width and the [grade times thickness] of the ore bodies shows that the ore at Unit 1 is about 75% wider than at . . . Section 17 while the grade times thickness (GT) is 33% higher at Section 17 than at Unit 1. One is wider, the other has higher GTs — the difference is irrelevant.

Ibid. (footnote omitted).³⁰ I find HRI's argument and supporting evidence to be credible and persuasive. I thus conclude that HRI properly used the radon

³⁰Mr. Pelizza states that an ore's GT — which is derived by multiplying the average percent of uranium of an ore interval by the thickness in feet of that interval — is "an excellent measure of the overall mineralization of the ore over the interval that will be mined" (HRI Exh. A at 4 n.1).

concentration in Unit 1 groundwater as a proxy for the radon concentration in Section 17 groundwater.³¹

The Intervenor's expert, Mr. Franke, nevertheless asserts that "it is likely that dissolved radon concentrations are higher at Section 17 than at Unit 1 because groundwater [at the former] has been exposed to oxidizing conditions in the existing mine shafts" (Intervenors' Exh. L at 9-10). Mr. Franke, however, provides no support for this assertion. HRI's expert, Mr. Pelizza, states that he "know[s] of no reference that suggests that radon dissolution in water is 'likely' or even possibly impacted as [a] result of oxidation" (HRI Exh. A at 5). Rather, radon forms from decay of radium-226, and "[o]xidation does not affect the rate of radioactive decay" (*ibid.*). I therefore decline to credit Mr. Franke's groundless assertion.

Mr. Franke also "assum[es]" that radon concentration in the Section 17 groundwater may be twelve times higher than in the Unit 1 groundwater (Intervenors' Exh. L at 10), but he fails to provide any basis for this assumption, which I therefore decline to credit. *See* NRC Staff Exh. 1, at 10; HRI Exh. A at 5. Moreover, Mr. Franke advances an argument using an incorrect figure from the FEIS. Referring to FEIS Table 4.24, he cites a figure of 8.4×10^{-5} as the radon concentration at receptor CRR 4, and he argues that multiplying this figure by 12 "would result in radon concentrations exceeding the applicable standard" (Intervenors' Exh. L at 10). The figure he uses, however, is the maximum radon concentration for an *unpressurized* ion exchange system, and HRI will be using a *pressurized* ion exchange system for which the maximum radon concentration is 5.7×10^{-6} (NRC Staff Exh. 1, at 11) (citing FEIS Table 4.24). Even if this figure were multiplied by 12 (notwithstanding that, as stated above, the number 12 lacks a basis), it would still result in a radon concentration that is less than 1/10th the regulatory standard. *See* NRC Staff Exh. 1, at 11; *see also* HRI Exh. A at 5.

Finally, the Intervenor's argue that HRI's license should be invalidated because HRI improperly failed to calculate doses from radiological air emissions attributable to "land application" of radioactive wastewater (Intervenors' Written Presentation at 26-27). "Land application" is a wastewater disposal method that uses agricultural irrigation equipment to apply wastewater over a relatively large land area (FEIS at 2-19). Assuming this argument has not been waived (*but see* HRI's Response at 32 n.13; NRC Staff's Response at 25), it does not provide a basis for invalidating HRI's license, because the issue is not ripe for adjudication. "HRI's license does not currently authorize waste disposal through land application" (CLI-01-4, 53 NRC at 51). Before HRI may use a land application

³¹ Notably, the predictions in the FEIS regarding radon releases during Section 17 mining operations were based on several highly conservative assumptions (FEIS at 4-83), which will "provide assurances that the actual [radon] releases will be well within the 10 C.F.R. Part 20 limits" (NRC Staff's Response at 25) and, hence, protective of public health and safety.

disposal technique, “it must first submit a plan, in the form of a ‘detailed license amendment’ application, and receive approval by the NRC” (*ibid.*). Such an application would be subject to additional environmental review and would have to demonstrate that the proposed disposal method “meets NRC’s release limits for radionuclides” (FEIS at 2-18; *accord id.* at 4-90; CLI-01-4, 53 NRC at 51; LC 11.8). If HRI ultimately chooses to use land application as a disposal technique, the Intervenor will then have the opportunity to raise any appropriate challenges.

2. HRI’s Meteorological Data Is Adequately Protective of Public Health and Safety

The Intervenor claim (Intervenor’s Written Presentation at 28) that HRI improperly failed to establish a meteorological station on Section 17 to obtain onsite weather data for its license application. Instead, HRI relied on National Weather Service data for Gallup, New Mexico, which is about 12 miles southwest of Section 17. This renders HRI’s license invalid, argue the Intervenor, because “site-specific meteorological data, and wind data in particular, are critical to accurately determine dispersion of radon at Section 17” (*id.* at 29). Because the wind data used by HRI — including data showing that the wind generally blows in a southwest to northeast direction — allegedly is not representative of Section 17, the Intervenor assert that HRI’s mining operations may pose an unacceptable threat to public health and safety (*ibid.*) (citing Intervenor’s Exh. L).

HRI responds (HRI’s Response at 35-36) that its use of local National Weather Service data was appropriate and, indeed, consistent with the NRC’s Standard Review Plan for [ISL] Uranium Extraction License Applications, NUREG-1569 (June 2003) [hereinafter NUREG-1569], which requires NRC to review data

collected onsite or at nearby meteorological stations. The data to be reviewed include (1) National Weather Service station data, including locations of all National Weather Service stations within . . . [a 50-mile] radius; . . . [or] (2) On-site meteorological data . . . if National Weather Service data representative of the site are not available

(NUREG-1569 at 2-13). HRI’s expert, Mr. Pelizza, states that the National Weather Service data used in this case — which came from a service station only 12 miles southwest of Section 17 and thus is well within the 50-mile limit — “is the best available data to be used in the . . . modeling that was performed for the project” (HRI Exh. A at 6). Moreover, HRI also evaluated limited meteorological information obtained from the UNC mill site about “two to three miles north of the Section 17 site which supports the [National Weather Service] information” (*ibid.*). Accordingly, declares Mr. Pelizza, its meteorological data is more than

adequate, because it is representative of the downwind *and* upwind sides of Section 17 (*ibid.*).

Mr. Pelizza also examined topographical maps that, in his judgment, confirmed what the National Weather Service station data revealed; namely, topographical features cause the wind to move from the southwest to the northeast (HRI Exh. A at 6). Although the Intervenor's witness, Mr. King — who lives directly east of Section 17 — states that he occasionally observes dust blowing from west to east onto his land (Declaration of Larry J. King at 3 (June 2, 2005) [hereinafter Intervenor's Exh. N]), this does not alter the conclusion that the prevailing wind direction on Section 17 is southwest to northeast. As Mr. Pelizza explained, Mr. King's observation is consistent with the wind rose diagram in FEIS Figure 3.1, "where the annual wind rose includes a due westerly wind component, albeit not the predominant component" (HRI Exh. A at 7).

The NRC Staff agrees with HRI that the meteorological data is representative of Section 17 and is sufficiently protective of public health and safety (NRC Staff's Response at 26). Moreover, the NRC Staff's expert, Mr. McKenney, confirms that the topographical features around Section 17 exhibit a general southwest to northeast trend akin to the prevailing wind direction, which would influence the wind in its already-predominating direction (NRC Staff Exh. 1, at 12).

I find the arguments and supporting evidence submitted by HRI and the NRC Staff to be credible and persuasive. I thus conclude that, contrary to the Intervenor's assertion, the meteorological data used by HRI for its Section 17 operations is appropriate and adequately protective of public health and safety.

3. HRI Properly Accounted for Boundary Receptors on Section 17

The Intervenor further claim that HRI's license should be invalidated, because HRI — when predicting airborne radionuclide concentrations at various receptor locations — "failed to account for three residences [Mr. Larry King and his two sisters and their families] that are close to and downwind from its Section 17 mine site" (Intervenor's Written Presentation at 30 (citing Intervenor's Exhs. L & N)).

HRI responds that its selection of boundary receptors was proper and protective of the King family residences. First, HRI's expert, Mr. Pelizza, states that HRI selected boundary receptors in compliance with guidance in NUREG-1569, which provides that Staff should review estimates of radiation doses to individuals at, *inter alia*, "the nearest residence in the direction of the prevailing wind" (HRI Exh. A at 7) (quoting NUREG-1569, at 7-9). Mr. Pelizza explains that the King residence is nearest to the Section 17 mine site, but it is *not* the residence nearest to the primary emission source (i.e., the processing facility at Section 8), *nor* is it downwind of that source (HRI Exh. A at 7-8). Rather, "the nearest residence [to the primary emission source] in the direction of the prevailing wind" (NUREG-1569, at 7-9) is the residence denominated CRR4 (HRI Exh. A at 7;

FEIS Figure 4.5). Because, as the FEIS shows (FEIS Table 4.24), the predicted radiological air emissions at CRR4 are a “small fraction of the regulatory limits” (*id.* at 4-83), “the King [residence], which is farther . . . from the primary source term at Section 8 and oblique to the prevailing wind . . . will also receive exposure that is at a fraction of the regulatory limits” (HRI Exh. A at 7).

Mr. Pelizza explains that the dose predictions made by HRI at a number of other receptor locations confirm the debility of the Intervenor’s concern (HRI Exh. A at 8):

[The Intervenor’s expert] does not address the dose calculations at other receptors shown in FEIS Figure 4.5. His only concern is that the King residence may be closer to the Section 17 well field than Receptor B5, but he does not address the modeling results at receptors B2 and B3, both of which are much closer to the predominant source . . . than the King residence yet they are shown to receive a small fraction of the . . . [regulatory limit]. Given that the King residence is farther away and oblique to the prevailing wind as compared to B2 and B3, a [dose in excess of the regulatory limit] is not feasible.

Mr. Pelizza thus concludes that the Intervenor’s assertion that HRI improperly selected boundary receptors is not well founded and must be rejected.

The NRC Staff’s expert, Mr. McKenney, agrees with HRI that the Intervenor’s concern about selection of boundary receptors is insubstantial. As he explains, the King residences are to the southeast of the Section 8 processing facility, which contains the ion exchange columns and will be “by far the largest potential source of radon from HRI’s [Section 17] operations” (NRC Staff Exh. 1, at 12). The calculated dose to the residence denominated CRR4 (FEIS Table 4.24) — which is about 500 meters from the Section 8 processing facility and in the direction of the prevailing winds — is well below the 10 C.F.R. Part 20 limits and bounds any possible doses to which the King residences may be exposed (NRC Staff Exh. 1, at 12-13).

Mr. McKenney also observes that “any [radon] releases from the Section 17 well fields [due to the venting of pressure relief valves] would likely be blown to the northeast and away from the King family residences” (*id.* at 12). In any event, “such releases would be quite low [and] any radon concentrations at [the King residences] as the result of HRI’s ISL operations would be much less than that calculated for CRR4” (*id.* at 13).

I find the arguments and supporting evidence submitted by HRI and the NRC Staff to be credible and persuasive. I thus conclude that, contrary to the Intervenor’s assertion, the boundary receptors selected by HRI for its Section 17 operations were appropriate and adequately protective of public health and safety.

4. HRI Has Provided Adequate Information To Demonstrate That Its Pressurized System Is Based on Proven Technology

The Intervenors argue that HRI failed to provide adequate technical information about its pressurized well field and ion exchange system, which purportedly will keep radon gas in solution in the circulating lixiviant and thereby minimize radon emissions (Intervenors' Written Presentation at 31). The Intervenors characterize HRI's system as "untested" and "unproven" (*id.* at 34, 35). Because the record allegedly contains "no documentation of [the system's] operational efficacy" (*id.* at 32), the Intervenors claim that HRI's license to mine Section 17 should be invalidated (*id.* at 31-35) (citing, *e.g.*, Intervenors' Exh. L; Affidavit of Alan Eggleston (May 14, 2004) [hereinafter Intervenors' Exh. T]).

HRI and the NRC Staff respond that the record contains ample evidence demonstrating that HRI's pressurized system is based on proven technology. *See* HRI's Response at 39-41; NRC Staff's Response at 26-27). I agree.

Significantly, in Phase I of this proceeding, the former Presiding Officer expressly rejected the identical argument advanced by the Intervenors. There, the Intervenors — in the context of asserting that the FEIS should be supplemented — challenged the adequacy of HRI's radiological assessment for Section 8, arguing that it was based on an untested and unproven system that purportedly would maintain radon gas in solution in a closed, pressurized system (LBP-04-23, 60 NRC at 457-58; *see also* Intervenors' Exh. T at 4). The Presiding Officer found this argument to be "without merit" (LBP-04-23, 60 NRC at 458). He explained (*ibid.*):

As pointed out by Mr. Pelizza, the pressurized downflow ion exchange system that will be used by HRI is not experimental and, in fact, is employed at other ISL sites in Wyoming licensed by the NRC. Further, according to [affiants from HRI and the NRC Staff], the process to be employed by HRI will serve to reduce significantly radon release during the production phase of the facility. . . . [T]he FEIS adequately evaluates the processes to be utilized by HRI to minimize the emission of airborne effluents.

The Commission declined to disturb that decision (CLI-04-39, 60 NRC 657 (2004)).

Here, no one disputes the correctness of the former Presiding Officer's conclusion that the pressurized system HRI will use at Section 8 has been adequately tested and proven (LBP-04-23, 60 NRC at 457-58). Because the system that HRI will use there is identical to the system it will use at Section 17, the former Presiding Officer's well-supported conclusion applies with equal force here. For that reason, I reject the Intervenors' attack on HRI's pressurized system.

Alternatively, I conclude, based on an independent review of the record, that the Intervenors' argument is insubstantial. First, HRI's expert, Mr. Pelizza,

states that HRI will “remov[e] vent gas (including radon) [from wastewater] in an intermediate holding tank using a vacuum pump, compressing the gas and returning it to the groundwater on the injection side. . . . This is a relatively simple concept so there is no standard design plan per se” (HRI Exh. A at 9). The absence of technical documentation in the FEIS regarding this process is thus understandable, because the design simply implements “basic engineering fundamentals” (*ibid.*).

Second, Mr. Pelizza states that — contrary to the Intervenor’s assertion — HRI’s “[p]ressurized downflow ion exchange systems are not unusual and are currently in use at the NRC licensed ISL sites in Wyoming and by URI, Inc., HRI’s sister company in Texas” (HRI Exh. A at 9). The NRC Staff’s expert, Mr. McKenney, confirms that the technology is tested and proven, citing the “successful use of similar technology at the Power Resources, Inc.’s Highland-Smith Ranch ISL facility in Wyoming” (NRC Staff Exh. 1, at 13). Notably, record evidence obtained from monitoring operations at the ISL mining site in Texas shows that the system released “no measured radon” to the atmosphere (HRI Exh. A at 10), which likewise demonstrates the technical efficacy of HRI’s proposed system, and which refutes the notion that HRI’s proposed system is not based on established technology.

Moreover, HRI will monitor its lixiviant during Section 17 mining operations to ensure that the amount of radon released to the atmosphere does not exceed the figure that HRI used for purposes of predicting radon emissions (HRI Exh. A at 9). Additionally, to ensure compliance with the limits in 10 C.F.R. Part 20, HRI will continuously monitor for gamma and radon emissions upwind of the Section 8 satellite processing facility, downwind of the Section 8 satellite processing facility, and downwind at the nearest residence (LC 10.30; Intervenor’s Exh. F at 104, 106; Intervenor’s Exh. I at 14-16). Finally, HRI’s license requires it to submit a detailed effluent and environmental monitoring program prior to injection of lixiviant at any site (LC 10.30). These requirements will serve to ensure that HRI’s radiological air emissions at Section 17 do not exceed regulatory limits and, thus, do not threaten public health and safety.³²

IV. CONCLUSION

For the foregoing reasons, I find — with the concurrence of Special Assistants Dr. Richard Cole and Dr. Robin Brett — that HRI has carried its burden of demonstrating that the Intervenor’s challenges relating to radiological air emissions do

³² Significantly, the FEIS shows that even *without* a closed, pressurized system, airborne concentrations of radon would be well below the 10 C.F.R. Part 20 limits (FEIS at 4-85; *see also* NRC Staff Exh. 1, at 14-15).

not provide a basis for invalidating or amending HRI's license to perform ISL uranium mining at Section 17.

Pursuant to 10 C.F.R. §§ 2.786(b) and 2.1253, a party wishing to challenge this Decision before the Commission must file a petition for review within 15 days after service of this Decision. Any other party to this proceeding may, within 10 days after service of a petition for review, file an answer supporting or opposing Commission review (*id.* § 2.786(b)(3)). The filing of a petition for review is mandatory for a party seeking to exhaust its administrative remedies before seeking judicial review (*id.* §§ 2.786(b)(1) and 2.1253). If no party files a petition for review of this Decision, and if the Commission does not *sua sponte* review it, this Decision will constitute the final action of the Commission 30 days after its issuance (*id.* § 2.1251(a)).

It is so ORDERED.

BY THE PRESIDING OFFICER³³

E. Roy Hawkens
ADMINISTRATIVE JUDGE

Rockville, Maryland
January 6, 2006

³³ Copies of this Partial Initial Decision were sent this date by Internet e-mail transmission to counsel for: (1) the Applicant, HRI; (2) the Intervenors, Eastern Navajo Diné Against Uranium Mining, the Southwest Research and Information Center, Grace Sam, and Marilyn Morris; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ann Marshall Young, Chair
Michael C. Farrar
Peter S. Lam

In the Matter of

Docket No. 55-22685-SP
(ASLBP No. 05-840-01-SP)

DAVID H. HAWES
(Reactor Operator License for
Vogtle Electric Generating Plant)

January 9, 2006

RULES OF PRACTICE: SETTLEMENT

Having previously raised the possibility of a settlement that might both promote safe plant operation and make allowance for Petitioner's military service in Iraq that interrupted his operator license testing, the Licensing Board commends and approves parties' settlement agreement that achieves those ends.

ORDER

(Approving Settlement Agreement and Terminating Proceeding)

The NRC Staff and David H. Hawes have filed a joint motion to terminate this proceeding, involving David Hawes' request for hearing on the Staff's proposed denial of his application for a reactor operator license, based on the parties' settlement agreement filed January 5, 2006, with this Board. Joint Motion To Terminate Proceeding (Jan. 5, 2006); Settlement Agreement (Nov. 16, 2005). The parties have agreed upon two options for resolution of these matters, the selection to be determined by Vogtle Staff, both of which provide for training and

reexamination, as well as exemption from certain regulatory requirements under certain circumstances. Settlement Agreement at 2-3.

Having previously raised with the parties the possibility of a settlement that might promote both the interest of assuring the safe operation of the Vogtle plant and any interests of Mr. Hawes as a member of the Georgia National Guard whose service in Iraq interrupted his previous testing for an operator license, *see, e.g.*, Tr. 15-19; *see also* Order (Granting Hearing, Setting Briefing Schedule and Telephone Conference, and Addressing Matters Discussed in September 1, 2005, Telephone Conference) (Sept. 8, 2005) [hereinafter Sept. 8. 2005 Order], we commend the parties for achieving this agreement (also signed by the General Counsel for Vogtle owner, the Southern Company, in light of its involvement in the agreed-upon training and testing), which appears to us to address these interests in an effective and equitable manner.

In consideration of the preceding, we hereby approve the parties' settlement agreement,¹ incorporate it into this Order (*see* attached copy), and terminate this proceeding.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

Michael C. Farrar
ADMINISTRATIVE JUDGE

Peter S. Lam
ADMINISTRATIVE JUDGE

Rockville, Maryland
January 9, 2006²

¹ We note that the Staff now urges that, as no actual notice of hearing was issued in this proceeding, approval by the Board may not be required under 10 C.F.R. § 2.338(i). However, as we did grant Mr. Hawes' hearing request (*see* Sept. 8. 2005 Order), and as we find the resolution of the case under the agreement to be appropriate and in keeping with earlier discussions with the parties, we likewise find our approval of the agreement — as contemplated by the express terms and conditions of that agreement (*see* Settlement Agreement at 1, 3) — to be appropriate under the circumstances.

² Copies of this Order were sent this date by e-mail transmission to all parties.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

**Docket No. 55-22685-SP
(ASLBP No. 05-840-01-SP)**

**DAVID H. HAWES
(Denial of Reactor Operator License)**

November 16, 2005

SETTLEMENT AGREEMENT

On June 28, 2005, David H. Hawes filed a request for hearing, pursuant to 10 C.F.R. § 2.309, to contest the NRC staff's proposed denial of his application for a reactor operator (RO) license for failure to receive a passing grade on the written examination. The request for hearing was granted on September 8, 2005.

The parties³ to the above captioned proceeding, the NRC staff (Staff) and Mr. Hawes, have engaged in negotiation and agree that it is in the public interest to terminate this proceeding without further litigation and without reaching a conclusion on the merits, subject to the approval of the Atomic Safety and Licensing Board (Board).

NOW, THEREFORE, IT IS STIPULATED AND AGREED AS FOLLOWS:

1. Mr. Hawes agrees to waive his right to a hearing in connection with this matter and waive any right to contest or otherwise appeal this Settlement Agreement once approved by the Board.
2. Mr. Hawes agrees that he did not receive a passing grade on the written examination.
3. Mr. Hawes agrees that he will participate in one of the two alternatives discussed below.
4. Mr. Hawes understands and agrees that the decision regarding which alternative will be chosen will be made by the Vogtle staff.
5. First option:
 - a. Mr. Hawes agrees to retake the written RO examination in the spring of 2006.

³ Although not a party to the proceeding, because it will be involved in the training and testing of Mr. Hawes, Southern Company, the owner of Vogtle Electric Generating Plant, is a signatory to this agreement.

b. The Staff agrees to exempt Mr. Hawes from the six (6) month waiting period required for a third application for an RO license, pursuant to 10 C.F.R. § 55.35. Mr. Hawes understands that the exemption will be contingent on Vogtle providing the necessary remedial training and sufficient justification for the exemption. He also understands that the date of the written examination must be agreed to by the Vogtle staff and depends on the availability of the resources of Vogtle and the Staff to prepare, review, approve and administer the examination.

c. Mr. Hawes agrees to immediately enter and fully participate in the licensed operator requalification training program, which must include all subject matter he has missed since taking the license exam last May. In addition, he agrees to take all the RO requalification examinations and operating tests given under that program as if he had received a license last May. Mr. Hawes agrees that depending on the timing of the retaken written examination and how much time has elapsed since the last time Mr. Hawes did a walk-through and simulator operating test, the Staff may expect the facility to administer a complete operating test within reasonable proximity, i.e., one month, of the retaken written examination.

6. Second option:

a. Mr. Hawes agrees that, as an alternative to Items 5a-c above, he can enroll in the initial license training program beginning early in 2006 and complete that program in its entirety in preparation for the NRC licensing examination currently scheduled for July 2007.

b. The Staff agrees that since Mr. Hawes' eligibility for a waiver of the operating test would expire prior to that, pursuant to 10 C.F.R. § 55.47, it will consider, and currently sees no reason why it would not grant, an exemption from taking the operating test pursuant to 10 C.F.R. § 55.11. Mr. Hawes understands that such exemption would be contingent on his successful completion of the facility's initial training program, including passing the final audit written examination, walk-through, and simulator operating test.

7. Mr. Hawes acknowledges that he has had the opportunity to seek counsel and to discuss the terms of this agreement with counsel if he so chose.

8. The Staff and Mr. Hawes understand and agree that this Settlement Agreement, and any releases under this Settlement Agreement, are limited to the parties to the above-captioned proceeding and to the Southern Company. This Settlement Agreement does not resolve any matters not contained herein.

9. The Staff and Mr. Hawes understand and agree that this Settlement Agreement disposes of all matters in issue in this litigation, and is final as to all issues regarding the Staff's proposed denial of Mr. Hawes' RO license.

10. Mr. Hawes and the Staff agree to file a joint motion requesting the Board to approve this Settlement Agreement and terminate the proceeding, pursuant to

the Commission's regulations in 10 C.F.R. § 2.338. If this Settlement Agreement is not approved or is changed in any substantive manner by the Board, this Settlement Agreement may be voided by any party by giving written notice to the parties and the Board. The parties agree that under those circumstances and upon request they will negotiate in good faith to resolve differences.

IN WITNESS WHEREOF, Mr. Hawes, the Staff and Bentina Terry, General Counsel, The Southern Company, have caused this Settlement Agreement to be executed by the parties or their duly authorized representatives.

Date: 12/19/05

Susan L. Uttal
Counsel for the NRC staff

Date: 21 Nov. 05

David H. Hawes

Date: 12/06/05

Bentina C. Terry
General Counsel
The Southern Company

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alex S. Karlin, Chairman
Dr. Anthony J. Baratta
Lester S. Rubenstein

In the Matter of

Docket No. 50-271-OLA
(ASLBP No. 04-832-02-OLA)

**ENTERGY NUCLEAR VERMONT
YANKEE, LLC, and ENTERGY
NUCLEAR OPERATIONS, INC.**
(Vermont Yankee Nuclear Power
Station)

January 17, 2006

With the exception of the factual portions of one document, the Board denies a motion to compel production of fifteen documents by the Department of Public Service of the State of Vermont because the documents qualify for the deliberative process privilege and the State has failed to show an immediate need for the documents that outweighs the privilege.

**RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS
PRIVILEGE**

The deliberative process privilege requires that the information be both pre-decisional and deliberative.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE; QUALIFIED PRIVILEGE

The deliberative process privilege is a qualified privilege, meaning a board has the discretion to compel production of a document upon a finding that the need for the evidence outweighs the interests that support the privilege.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE; QUALIFIED PRIVILEGE

In ruling on the qualified nature of the deliberative process privilege, the following factors are relevant in balancing the need for the documents against the government's interest in nondisclosure: (i) the relevance of the evidence; (ii) the availability of other evidence; (iii) the seriousness of the litigation and the issues involved; (iv) the role of the government in the litigation; and (v) the possibility of future timidity by government employees who will be forced to recognize that their secrets are violable.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE

Documents that contain the analysis, opinions, and recommendations of NRC Staff members regarding an applicant's response to prior requests for additional information (RAIs) or the formulation of new RAIs are deliberative and thus may qualify for the deliberative process privilege.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE

NRC Staff communications are factual in nature and are not protected by the deliberative process privilege when the communications summarize the procedural aspects of Staff projects or report on the status of Staff work.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE; QUALIFIED PRIVILEGE

A showing of relevance alone is not sufficient for a party seeking a deliberative process privilege document to demonstrate that its need for the document outweighs the need to protect the document.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE

NRC Staff communications concerning the appropriate wording and scope of a potential license condition are deliberative and thus may qualify for the deliberative process privilege.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE

NRC Staff communications concerning whether a potential license condition should be imposed are deliberative and thus may qualify for the deliberative process privilege.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE; QUALIFIED PRIVILEGE

The fact that deliberative process privilege documents contain important new analyses that are relevant to admitted contentions weighs in favor of their disclosure.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE; QUALIFIED PRIVILEGE

In a proceeding that involves assuring the safety of a proposed 20% increase in the power of a nuclear power reactor, the “seriousness of the litigation and the issues involved” factor weighs in favor of disclosing deliberative process documents.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE; QUALIFIED PRIVILEGE

When the NRC Staff is a party in a proceeding and not merely an indifferent bystander to private party litigation, the role of the government in the litigation weighs in favor of disclosure.

RULES OF PRACTICE: DISCOVERY; DELIBERATIVE PROCESS PRIVILEGE; QUALIFIED PRIVILEGE

The imminent availability of the NRC Staff’s authoritative position on the subject that is discussed in the deliberative process documents constitutes “other

evidence” such that the immediate need for the documents does not outweigh the deliberative process privilege.

MEMORANDUM AND ORDER

(Ruling on Deliberative Process Privilege Claims)

Before the Board is a motion by the Department of Public Service of the State of Vermont (State) to compel the NRC Staff (Staff) to produce fifteen documents that the Staff withheld from disclosure under 10 C.F.R. § 2.336(b).¹ This is the State’s third motion to compel and, as with the previous two, the Staff claims that the documents are protected by the deliberative process privilege.² Both of the prior motions were denied. LBP-05-33, 62 NRC 828 (2005). With the exception of one portion of one document, State Motion To Compel III is likewise denied because we conclude that (a) the fifteen documents qualify for the deliberative process privilege, and (b) the State has failed to show that its immediate need for these documents outweighs the privilege.

I. BACKGROUND

A. Procedural Posture

Our December 21, 2005 ruling explains the relevant history and background of this case; thus our summary of the procedural context of State Motion To Compel III will be brief. Since the outset of this proceeding, the Staff has made documents available to the parties, as required by 10 C.F.R. § 2.336(b). Simultaneously, the Staff has withheld other documents, which it asserts are privileged or protected, and has listed these “otherwise discoverable documents” on privilege logs. *See* 10 C.F.R. § 2.336(b)(5). Recently, the State challenged the Staff’s assertion of the deliberative process privilege regarding certain of the withheld documents. In LBP-05-33, we denied the State’s first two motions challenging the Staff’s deliberative process privilege claims covering a total of twenty-eight documents that were listed on the Staff’s July 27 and September 6, 2005 deliberative process privilege logs. State Motion To Compel III seeks access to fifteen documents that were listed in the Staff’s September 29 and October 31, 2005 deliberative process

¹Vermont Department of Public Service Motion To Compel Production of Certain NRC Staff Documents (III) (Nov. 22, 2005) [State Motion To Compel III].

²NRC Staff’s Answer to Vermont Department of Public Service’s Third Motion To Compel (Dec. 2, 2005) [Staff Answer III].

privilege logs.³ State Motion To Compel III at 1. Based on the descriptions in the Staff's privilege logs and brief, the fifteen documents in question can be grouped into three categories:

(1) *RAI Documents*: These six documents deal with Staff discussions relating to the need to request additional information (RAI) on various subjects, the adequacy of the Applicant's answers to previous RAIs, and the drafting of new RAIs. These documents are identified in the privilege logs as documents numbered 14-22, 14-24, 14-30, 15-05, 15-06, and 15-07.

(2) *Transient Testing Documents*: These three documents are described as a part of a chain of e-mail messages regarding the wording and scope of a transient testing license condition. Staff Answer III at 10. These documents are numbered 15-40, 15-41, and 15-43.

(3) *Containment Overpressure Documents*: These six documents deal with Entergy's proposed credit for containment overpressure and possible license conditions that might be imposed. Staff Answer at 10-11. These documents are numbered 15-30, 15-32, 15-33, 15-35, 15-36, and 15-42.⁴

B. Positions of Parties

In some respects, the arguments of the parties are the same as those articulated with regard to State Motions To Compel I and II. For example, State Motion To Compel III provides no new arguments regarding the applicability of the deliberative process privilege, but instead incorporates prior arguments that internal Staff communications relating to the need for additional RAIs are not "deliberative" because they are only tenuously related to the Staff's final decision on Entergy's

³These documents are referred to throughout this Memorandum and Order by the number assigned to each document in the Staff's deliberative process privilege log. The fifteen documents that the State challenges are documents 14-22, 14-24, 14-30, 15-05, 15-06, 15-07, 15-30, 15-32, 15-33, 15-35, 15-36, 15-40, 15-41, 15-42, and 15-43. See State Motion III, Tab C, NRC Staff Deliberative Process Log of 9/29/05 and 10/31/05 [9/29/05 Deliberative Process Log and 10/31/05 Deliberative Process Log, respectively].

⁴Although the privilege log describes 15-30 as dealing with "input to draft SER regarding risk evaluation" and does not refer specifically to credit for containment overpressure, for purposes of this analysis, we treat it as a Containment Overpressure Document. Also, although the Staff's brief characterizes document 15-42 as dealing with transient testing, Staff Answer III at 10, the Staff's October 31, 2005 privilege log describes this document as dealing with containment overpressure credit, 10/31/05 Deliberative Process Log at 12. Finally, although document 15-32 is not discussed in the Staff brief, it appears that this is due to a typographical error, in that the Staff discusses document 15-31, a document which is *not* requested by the State and appears unrelated to credit for containment overpressure. See 10/31/05 Deliberative Process Log at 9.

application and do not involve a decision by a high-ranking NRC official. State Motion To Compel III at 3.

The bulk of State Motion To Compel III focuses on five of the Containment Overpressure Documents.⁵ The State argues that, even if they qualify for the deliberative process privilege, these particular documents involve an “extremely important issue” relating to the Final Safety Evaluation Report (SER), and the State’s need for them outweighs any chilling effect that might be caused by compelling their production. State Motion To Compel III at 3-7. The State alleges that these documents, triggered by a September 2005 letter from the Advisory Committee on Reactor Safeguards (ACRS),⁶ apparently reflect a significant change in the Staff’s approach in evaluating Entergy’s request for credit for containment overpressure (which is central to State Contentions 1 and 2).⁷ State Motion To Compel III at 4. The State argues that unless the five documents are produced now, the information relating to the Staff’s new approach to containment overpressure will not be available until the Final SER is issued on February 24, 2006,⁸ which will be too late to allow the State to prepare its case.⁹ State Motion To Compel III at 6-7. The State alleges that it needs these Containment Overpressure Documents to minimize surprise, prepare for the hearing, and avoid delaying this proceeding. *Id.*

The Staff maintains that the documents listed in its deliberative process privilege logs were properly withheld from disclosure and that the State has failed to demonstrate an overriding need for the documents that outweighs its need for protection. Staff Answer III at 6-7. The Staff argues that documents

⁵ Containment Overpressure Documents numbered 15-30, 15-32, 15-33, 15-35, and 15-36. The State does not argue that it needs the sixth document (15-42), perhaps because it is now available in redacted form.

⁶ See State Motion To Compel III, Tab D, Letter from Graham B. Wallis, Chairman, ACRS, to Luis A. Reyes, Executive Director of Operations, NRC (Sept. 20, 2005), ADAMS Accession No. ML052630562.

⁷ The State Contention 1 is as follows: “Entergy has claimed credit for containment overpressure in demonstrating the adequacy of ECCS pumps for plant events including a loss of coolant accident in violation of draft General Design Criteria 44 and 52 and therefore Entergy has failed to demonstrate that the proposed uprate will provide adequate protection for public health and safety as required by 10 C.F.R. § 50.57(a)(3).” LBP-04-28, 60 NRC 548, 580 (2004).

State Contention 2 alleges: “Because of the current level of uncertainty of the calculation which the Applicant uses to demonstrate the adequacy of ECCS pumps, the Applicant has not demonstrated that the use of containment overpressure to provide the necessary net positive suction head for ECCS pumps will provide adequate protection for the public health and safety as required by 10 C.F.R. § 50.57(a)(3).” *Id.*

⁸ See NRC Staff’s Tenth Status Report on Review Schedule (Dec. 16, 2005) at 2.

⁹ The deadline for filing the final list of witnesses is 10 days after the issuance of the Final SER, and initial written statements of position and written testimony must be filed within 60 days of the issuance of the Final SER. See Licensing Board Initial Scheduling Order (Feb. 1, 2005) at 3-4 (unpublished).

that contain discussions among Staff members concerning the need for additional RAIs represent exactly the type of deliberations that the privilege was intended to cover. *Id.* at 8-9. The Staff asserts that the State’s position regarding the need for the Containment Overpressure Documents is without merit because the documents the State seeks do not contain Entergy’s confirmatory risk-informed evaluation of its proposed credit for containment overpressure or the Staff’s analysis of Entergy’s evaluation, but instead only include Staff opinions on the potential wording of a license condition requiring Entergy to perform such an evaluation. *Id.* at 13-14. With regard to document 15-30, the Staff argues that the State does not need it because the information is already publicly available in section 2.13 of the Draft SER. *Id.* at 13.

C. Applicable Law

In LBP-05-33, we discussed the legal requirements for the deliberative process privilege and thus we will only highlight some key points here. “The deliberative process privilege protects documents ‘reflecting advisory opinions, recommendations and deliberations comprising part of a process by which governmental decisions and policies are formulated.’” LBP-05-33, 62 NRC at 843 (quoting *National Labor Relations Board v. Sears, Roebuck & Co.*, 421 U.S. 132, 150 (1975)). The privilege “does not extend to factual material severable from the deliberative context.” *Id.* (citing *Environmental Protection Agency v. Mink*, 410 U.S. 73, 87-88 (1973)). Additionally, the privilege applies only if the information is both (1) predecisional and (2) deliberative. *Id.*

The deliberative process privilege is a qualified privilege, meaning a board has the discretion to compel production of a document upon a finding that the need for the evidence outweighs the interests that support the privilege. LBP-05-33, 62 NRC at 844-45. In balancing the need for the documents against the government’s interest in nondisclosure, courts have considered various factors, including the following:

- (i) the relevance of the evidence sought to be protected;
- (ii) the availability of other evidence;
- (iii) the seriousness of the litigation and the issues involved;
- (iv) the role of the government in the litigation; and
- (v) the possibility of future timidity by government employees who will be forced to recognize that their secrets are violable.

In re Franklin National Bank Securities Litigation, 478 F. Supp. 577, 583 (E.D.N.Y. 1979).¹⁰ Commentators have observed that the importance of the evidence to the case is generally determinative in this balancing, and the first two *Franklin* factors — relevance and the availability of other evidence — focus on the importance of the evidence.¹¹ For example, if the documents at issue are not relevant, then, as a matter of law, a showing of sufficient need is not possible. *United States v. Farley*, 11 F.3d 1385, 1389-91 (7th Cir. 1993). Similarly, even if a draft document is relevant and important, once the final version of the document becomes available, the need for the draft (or comments suggesting changes to a draft) may become moot or minimal. *See, e.g., Missouri v. Army Corps of Engineers*, 147 F.3d 708, 711 (8th Cir. 1998); *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-773, 19 NRC 1333, 1345 (1984).

II. ANALYSIS

We apply the aforementioned principles to each of the three categories of documents that the Staff claims are privileged, first determining whether the deliberative process privilege applies to the disputed documents and, if so, then balancing the State’s need for the documents against the Staff’s showing of harm that would result from disclosing the documents. Because the only new argument raised in State Motion To Compel III deals with the State’s showing of need for the five Containment Overpressure Documents, we find that our ruling in LBP-05-33 governs the outcome of most of the issues currently before us.¹²

¹⁰The “*Franklin* factors” are a frequently applied test for qualifying the deliberative process privilege. *See, e.g., In re Subpoena Duces Tecum*, 145 F.3d 1422, 1423-24 (D.C. Cir. 1998); *In re Subpoena Served upon the Comptroller of the Currency*, 967 F.2d 630, 634 (D.C. Cir. 1992); Paul F. Rothstein & Susan Crump, *Federal Testimonial Privileges* § 5:10 (2d ed. 2005).

¹¹*See* 26A Charles Alan Wright & Kenneth W. Graham, Jr., *Federal Practice and Procedure* § 5690 (1992 & Supp. 2005).

¹²Although the Staff has repudiated its earlier agreement with the State regarding the procedures for requesting and filing challenges to privileged documents, the Staff has not raised the issue of timeliness here. *See* Staff Answer III at 4 n.8. Therefore, given that the Staff has not objected to the timeliness of State Motion To Compel III, we find the motion to be timely for reasons stated in our prior decision. *See* LBP-05-33, 62 NRC at 837-40. However, there will be no further forbearance on this point. We remind the parties that if they “believe that additional time for consultation may be productive, either on a specific dispute or more generally, they are encouraged to advise the Board and move for the enlargement of the 10-day time frame of 10 C.F.R. § 2.323(a).” *Id.* at 838.

Our previous decision also addressed whether a senior NRC official was required to assert the deliberative process privilege. *Id.* at 846-51 (holding that the NRC division director was sufficient). We find that the affidavit of Catherine Haney, Director of the Division of Operating Reactor Licensing,

(Continued)

A. RAI Documents

1. Applicability of the Deliberative Process Privilege

As the State has not proffered new arguments regarding whether the RAI Documents are protected by the deliberative process privilege, we hold, pursuant to our reasoning in LBP-05-33, that these documents, with one exception, qualify for the deliberative process privilege. In our prior ruling, we held that discussions between Staff members concerning the adequacy and completeness of the application, the potential need for RAIs, and the adequacy of RAI responses may be protected by the deliberative process privilege. *See* LBP-05-33, 62 NRC at 845-46. Documents 14-22, 14-24, 15-05, 15-06, and 15-07 all contain the analysis, opinions, and recommendations of Staff members regarding Entergy responses to prior RAIs or the formulation of new RAIs. Therefore, we conclude that the Staff has demonstrated that these documents qualify for the deliberative process privilege.

However, the Staff description of one of the RAI Documents, document number 14-30, indicates that it contains (in addition to deliberations concerning new RAIs) statements concerning the “procedural aspects of completing the Draft SER” and “the overall status of the EPU review.” Staff Answer III at 8. Staff communications that summarize the applicable procedures or report on the status of a matter are factual in nature and are not protected by the privilege. *See Mink*, 410 U.S. at 87-88. Therefore, we find that these specific portions of document 14-30 do not qualify for the deliberative process privilege and thus this portion of State Motion To Compel III is granted.

2. Qualified Privilege Balancing

Having concluded that the six RAI Documents, with one exception, are covered by the deliberative process privilege, we must assess whether the State has shown a need for the documents that outweighs the Staff’s need to protect the documents. In LBP-05-33, we held that the State failed to carry its burden of demonstrating need for the documents because “[r]elevance alone is not sufficient.” LBP-05-33, 62 NRC at 851. *See also Farley*, 11 F.3d at 1389-91. The State has proffered no additional arguments explaining or justifying its supposed need for the RAI Documents. Therefore, this portion of State Motion To Compel III is denied.

in the NRC’s Office of Nuclear Reactor Regulation, satisfied these requirements. *See* Staff Answer III, Enclosure 1, Affidavit of Catherine Haney (Dec. 1, 2005).

B. Transient Testing Documents

1. Applicability of the Deliberative Process Privilege

The three Transient Testing Documents (15-40, 15-41, and 15-43) are part of a chain of e-mail messages between Staff members discussing the wording and scope of a transient testing license condition that has since been finalized.¹³ See Staff Answer III at 10. Such communications concerning the appropriate wording and scope of a license condition are deliberative because they contain the opinions of individual Staff members and do not necessarily represent part of the NRC's final policy decision concerning the sufficiency of Entergy's application, i.e., whether the license amendment should be granted, denied, or appropriately conditioned. The State has not offered any arguments, other than those proffered in State Motions To Compel I and II, to the contrary. Therefore, consistent with our ruling in LBP-05-33, 62 NRC 828, we uphold the Staff's assertion of the deliberative process privilege with regard to these documents.

2. Qualified Privilege Balancing

Other than incorporating by reference the arguments made in its first two motions, the State has made no showing of need for the Transient Testing Documents. As discussed in LBP-05-33 and in Section II.A.2 above, a showing of relevance alone is not sufficient to demonstrate need. The State's incorporated arguments do little more than argue relevance.¹⁴ Additionally, because the final version of the transient testing license condition is now publicly available,¹⁵ the State has little need for predecisional e-mail messages discussing the wording and scope of the license condition. See *Missouri v. Army Corps of Eng'rs*, 147 F.3d at 711. Therefore, we find that there is no showing that the State's need for the Transient Testing Documents outweighs the Staff's need to protect these predecisional and deliberative documents.

¹³ Document 15-42, which the privilege log describes as involving "containment overpressure credit," is, it appears incorrectly, included in the Staff's discussion of Transient Testing Documents. Staff Answer III at 10.

¹⁴ Even if relevance were sufficient, the relevance of these documents to the State's contentions is unclear because the State has not sought to adopt the New England Coalition's admitted contention dealing with transient testing. See LBP-04-28, 60 NRC at 571-72, 580.

¹⁵ See Letter from J.E. Dyer, Director of NRC Office of Nuclear Reactor Regulation, to Michael Kansler, President, Entergy Nuclear Operations, Inc. (Oct. 12, 2005) at 3, ADAMS Accession No. ML052630053.

C. Containment Overpressure Documents

1. Applicability of the Deliberative Process Privilege

Five of the Containment Overpressure Documents (15-32, 15-33, 15-35, 15-36, and 15-42) are described in the privilege logs as relating to the Staff's risk-informed evaluation of Entergy's request for credit for containment for overpressure.¹⁶ The sixth document, 15-30, described in the privilege log as involving "input to draft SER regarding risk evaluation," also appears to concern credit for containment overpressure. In general, the Containment Overpressure Documents are characterized by the Staff as containing recommendations and opinions as to whether a license condition should be imposed requiring Entergy to submit a confirmatory risk-informed evaluation of its proposed credit for containment overpressure. *See* Staff Answer III at 10-11. As with the Transient Testing Documents, the Containment Overpressure Documents contain information that reflects the opinions and nonbinding recommendations of individual Staff members and are intended to assist the NRC in reaching a final decision on the appropriateness of a license condition. Thus, we hold that they are protected by the deliberative process privilege.

2. Qualified Privilege Balancing

Having concluded that the Containment Overpressure Documents qualify for the deliberative process privilege, we now turn to the State's argument that it needs these documents immediately (rather than waiting until the Final SER is issued) because they are central to both of its contentions, and failure to produce them now will delay this proceeding. Here, for the first time, the State presents a "need" argument that raises a close case as to whether production of the documents should be compelled.

Focusing on the first two *Franklin* factors — relevance and availability of other evidence — it appears to us that the Containment Overpressure Documents are relevant and important to State Contentions 1 and 2, both of which challenge Entergy's request for credit for containment overpressure. *See* LBP-04-28, 60 NRC at 558-64, 580. The State claims that the requested documents reveal a significant departure from the Staff's methodology used in the Draft SER for calculating containment overpressure and stem from the September 2005 ACRS recommendation. State Motion To Compel III at 4. We agree that Staff documents concerning any new confirmatory probabilistic risk analysis on credit

¹⁶ Document 15-32 is a Containment Overpressure Document requested by the State, but the Staff's discussion of Containment Overpressure Documents appears to have inadvertently referred to 15-31 (a document concerning the Staff review and scheduling practices that was not requested) instead of 15-32. *Compare* 10/31/05 Deliberative Process Log at 9, *with* Staff Answer III at 10-11.

for containment overpressure would be vital to the State's preparation for the evidentiary hearing on its contentions. Thus, the relevance and importance of these deliberative process documents weigh in favor of their disclosure.

There is a temporal dimension, however, to the second *Franklin* factor — availability of other evidence — as it applies to the Containment Overpressure Documents. At this moment, there appears to be no “other evidence available” concerning any risk-informed evaluation of containment overpressure credit and whether such a license condition should be imposed. But when the Final SER is issued, in approximately 5 weeks, this situation will be cured and such evidence will be available. The Final SER will be the Staff's authoritative position regarding credit for containment overpressure and, as such, will be more useful to the State than the Staff's preliminary ruminations on the same subject.

Given the temporal dimension to the “availability of other evidence” *Franklin* factor, the issue here is whether the State's need for the Containment Overpressure Documents during the next 5 weeks (i.e., until the Final SER is issued) outweighs any harm that might be caused by the disclosure of these deliberative process documents. As noted, the State's “need” argument is that these documents are crucial if this proceeding is to stay on schedule. In contrast, the Staff is silent as to the harm or chilling effect that might be caused by the disclosure of these five documents a few weeks before the Final SER.¹⁷ In short, we have no information as to the fifth *Franklin* factor — how the release of these particular documents will, or will not, cause any realistic “future timidity by government employees who will be forced to recognize that their secrets are violable.” *Franklin*, 478 F. Supp. at 583.

Although the State has shown a significant need for the Containment Overpressure Documents, and this is a relatively close call,¹⁸ we conclude that, under the *Franklin* factors test, the *imminent* availability of the Final SER constitutes sufficient “other evidence” such that the immediate need for the documents does not outweigh *temporarily* honoring their protected status under the deliberative

¹⁷ The Staff argues only that (a) the Containment Overpressure Documents meet the criteria for the deliberative process privilege and (b) the State has not shown a sufficient need for the documents. Staff Answer III at 10-14.

¹⁸ No extended discussion of the remaining two *Franklin* factors is needed here. Given that this proceeding involves assuring the safety of a proposed 20% increase in the power of a nuclear power reactor, the third *Franklin* factor — the seriousness of the litigation and the issues involved — is clearly met. And since the NRC Staff is a central player and party in this matter and proceeding (not merely an indifferent bystander to private party litigation), the fourth *Franklin* factor — the role of the government in the litigation — also weighs in favor of disclosure.

process privilege.¹⁹ The Staff currently estimates that its Final SER will be available very shortly — in late February. If this important document contains new information that is material to any of the admitted contentions or triggers the filing of new or amended contentions, and warrants a change to the schedule set in our Initial Scheduling Order of February 1, 2005, the Board has full authority and discretion to take appropriate action. Accordingly, the State’s motion to compel the production of the Containment Overpressure Documents is denied.

III. RELIEF

State Motion To Compel III is granted with respect to those portions of document 14-30 that describe the procedural aspects of completing the Draft SER and the overall status of the EPU. The Staff shall produce these portions of 14-30 within fifteen (15) days of this Order. The remainder of the motion is denied because the documents qualify for the deliberative process privilege and because there is no overriding need for the documents immediately, given the fact that the Final SER, which will be issued within 5 weeks, will be better and more authoritative evidence. Once the Final SER is issued and delivered to the parties, they shall have ten (10) days within which to move for any adjustment to the schedule herein and thirty (30) days within which to move for leave to file any new or amended contentions.

¹⁹Document 15-30 is in a different status and the denial of the motion to compel its production is not a close case. This document deals with comments on the *Draft* SER, and since that draft is already publicly available, we fail to see that the State has any overriding need for comments on the draft. *See* Staff Answer III at 11.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD²⁰

Alex S. Karlin, Chairman
ADMINISTRATIVE JUDGE

By G.P. Bollwerk for
Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

By G.P. Bollwerk for
Lester S. Rubenstein
ADMINISTRATIVE JUDGE

Rockville, Maryland
January 17, 2006

²⁰ Copies of this Order were sent this date by Internet e-mail transmission to counsel for (1) Licensees Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.; (2) Intervenors Vermont Department of Public Service and New England Coalition of Brattleboro, Vermont; and (3) the Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Thomas S. Moore, Chairman
Dr. Paul Abramson
Dr. Anthony J. Baratta

In the Matter of

Docket No. 30-36974-ML
(ASLBP No. 06-843-01-ML)
(Materials License Application)

PA'INA HAWAII, LLC

January 24, 2006

In this proceeding regarding the application of Pa'ina Hawaii, LLC, to build and operate a commercial pool-type industrial irradiator, the Licensing Board finds that the Concerned Citizens of Honolulu (Petitioner) has established standing to intervene and has proffered at least one admissible contention, and therefore grants the Petitioner's request for a hearing.

RULES OF PRACTICE: STANDING TO INTERVENE

When assessing whether a petitioner has set forth a sufficient interest to intervene under 10 C.F.R. § 2.309, the Commission applies traditional judicial concepts of standing; specifically, a petitioner must demonstrate "a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision" (i.e., (1) injury, (2) causation, and (3) redressability). *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995); *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 612 (1976).

RULES OF PRACTICE: STANDING TO INTERVENE

A threatened unwanted exposure to radiation, even a minor one, is sufficient to establish an injury. *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 216 (2003).

RULES OF PRACTICE: STANDING TO INTERVENE (PROXIMITY PRESUMPTION)

In addition to the traditional requirements for standing, the Commission has recognized that a petitioner may have standing based upon its geographical proximity to a particular facility. *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329-30 (1989).

RULES OF PRACTICE: STANDING TO INTERVENE (PROXIMITY PRESUMPTION)

In appropriate circumstances, a petitioner's proximity to the facility in question provides for a so-called presumption that "a petitioner has standing to intervene without the need specifically to plead injury, causation, and redressability if the petitioner lives within, or otherwise has frequent contacts with, the zone of possible harm from the nuclear reactor or other source of radioactivity." *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 146 (2001), *aff'd on other grounds*, CLI-01-17, 54 NRC 3 (2001).

RULES OF PRACTICE: STANDING TO INTERVENE (PROXIMITY PRESUMPTION)

Demonstrating so-called proximity presumption standing requires a "determination that the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences." *Georgia Tech*, CLI-95-12, 42 NRC at 116; *Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site)*, CLI-94-12, 40 NRC 64, 75 n.22 (1994).

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

Each contention must: (1) provide a specific statement of the issue of law or fact to be raised or controverted; (2) provide a brief explanation of the basis for the contention; (3) demonstrate that the issue raised in the contention is within the scope of the proceeding; (4) demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved

in the proceeding; (5) provide a concise statement of the alleged facts or expert opinion that support the petitioner's position and on which the petitioner intends to rely at hearing, including references to specific sources and documents that will be relied upon to support its position on the issue; and (6) provide sufficient information to show that a genuine dispute on a material issue of law or fact exists with the applicant, which consists of either (a) references to specific portions of the application (including the applicant's environmental and safety reports) that are disputed and the reasons supporting the dispute, or (b) identification of each instance where the application purportedly fails to contain information on a relevant matter as required by law and the reasons supporting the allegation. *See* 10 C.F.R. § 2.309(f)(1)(i)-(vi).

RULES OF PRACTICE: CONTENTIONS

The petitioner is not required to provide an exhaustive discussion in its proffered contention, so long as it meets the Commission's admissibility requirements.

RULES OF PRACTICE: CONTENTIONS

The resolution of factual disputes is not the appropriate subject of inquiry at the contention admissibility stage of the proceeding.

NEPA: ENVIRONMENTAL ANALYSIS (CATEGORICAL EXCLUSION)

The regulatory history of the special circumstances exception to the categorical exclusions in 10 C.F.R. § 51.22(b) indicates that the location of an irradiator may be a circumstance in which the exclusion might not apply.

NEPA: ENVIRONMENTAL ANALYSIS (CATEGORICAL EXCLUSION)

An agency must affirmatively provide a reasoned explanation of the applicability of a categorical exclusion when special circumstances are alleged. *Alaska Center for the Environment v. U.S. Forest Service*, 189 F.3d 851, 859 (9th Cir. 1999); *Jones v. Gordon*, 792 F.2d 821, 828 (9th Cir. 1986); *Steamboaters v. Federal Energy Regulatory Commission*, 759 F.2d 1382 (9th Cir. 1985).

NEPA: SCOPE OF REVIEW (TERRORISM CONCERNS)

The Commission has found contentions asserting that the risks associated with terrorist attacks require that the agency prepare an Environmental Assessment

or an Environmental Impact Statement to be outside the scope of agency NEPA review and inadmissible.

MEMORANDUM AND ORDER
(Ruling on Petitioner's Standing and Environmental Contentions)

Before us is a request by the Petitioner, Concerned Citizens of Honolulu,¹ for a hearing on the application submitted by Pa'ina Hawaii, LLC (Pa'ina Hawaii or Applicant), on June 27, 2005, to build and operate a commercial pool-type industrial irradiator at the Honolulu International Airport.² In such a facility, items to be processed are loaded into a stainless steel chamber and lowered into a water-filled pool containing a cobalt-60 source, where they are exposed to radiation.³ The Applicant plans to use the facility to irradiate fresh fruit and vegetables for shipment to the United States mainland, as well as to irradiate cosmetics and pharmaceutical products.⁴ Additionally, the Applicant intends to use the irradiator for research and development projects and to irradiate other materials as approved by the NRC on a case-by-case basis.⁵

On August 2, 2005, the Nuclear Regulatory Commission published a notice of opportunity for a hearing on the Pa'ina Hawaii application for the possession and use of byproduct material in a commercial irradiator.⁶ Thereafter, on October 3, 2005, the Petitioner timely filed a request for a hearing.

In this decision, we address the Petitioner's standing to intervene and the admissibility of the Petitioner's proffered environmental, in contrast to safety, contentions. We bifurcated the initial steps of the proceeding in this manner because portions of the Pa'ina Hawaii application that concern non-environmental matters contain sensitive information that is not publicly available and can be made available only to Petitioner's counsel and expert under a protective order and after additional procedures that are still ongoing. For the reasons set forth below, we find that the Petitioner has established its standing to intervene and has proffered at least one admissible contention — the necessary prerequisites for the

¹ Request for Hearing by Concerned Citizens of Honolulu (Oct. 3, 2005) [hereinafter Hearing Request].

² See 70 Fed. Reg. 44,396 (Aug. 2, 2005).

³ See NRC Press Release, NRC Announces Opportunity for Hearing on License Application for Commercial Irradiator in Honolulu, Hawaii (July 26, 2005), ADAMS Accession No. ML052070251.

⁴ See 70 Fed. Reg. at 44,396.

⁵ See *id.*

⁶ See *id.*

grant of a hearing request. Accordingly, we grant the Petitioner's request for a hearing.

I. STANDING

A petitioner's right to participate in a licensing proceeding stems from section 189a of the Atomic Energy Act (AEA). That section provides for a hearing "upon the request of any person whose interest may be affected by the proceeding." 42 U.S.C. § 2239(a)(1)(A). The Commission regulations implementing that section of the AEA, 10 C.F.R. § 2.309(d), require that a licensing board, in ruling on a request for a hearing, determine whether the petitioner has an interest affected by the proceeding by considering (1) the nature of the petitioner's right under the AEA or the National Environmental Policy Act of 1969 (NEPA) to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest.

When assessing whether a petitioner has set forth a sufficient interest to intervene under 10 C.F.R. § 2.309, the Commission applies traditional judicial concepts of standing.⁷ Specifically, a petitioner must demonstrate "a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision" (i.e., (1) injury, (2) causation, and (3) redressability).⁸ Further, the petitioner must also demonstrate that its injury arguably falls within the zone of interests protected by the statutes governing NRC proceedings, such as the AEA or NEPA.⁹

When an organization petitions to intervene in a proceeding, it must demonstrate either organizational or representational standing. To demonstrate organizational standing, the petitioner must show "injury in fact" to the interests of the organization itself.¹⁰ Representational standing requires a demonstration that one or more of its members would otherwise have standing to intervene on their own,

⁷ See *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995); *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 612 (1976).

⁸ *Georgia Tech*, CLI-95-12, 42 NRC at 115; see *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992); *Dellums v. NRC*, 863 F.2d 968, 971 (D.C. Cir. 1988); *Public Service Co. of New Hampshire* (Seabrook Station, Unit 1), CLI-91-14, 34 NRC 261, 266-67 (1991); *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993).

⁹ See *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13 (2001).

¹⁰ See *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998).

and that such a specifically identified member has authorized the organization to request a hearing on its behalf.¹¹

To support its claim of representational standing the Petitioner's hearing request states that it is "a grassroots, unincorporated environmental organization that was created to ensure the people who live and work in Honolulu will be adequately protected from potential public health and safety and environmental impacts associated with Pa'ina Hawaii's proposed irradiator."¹² The petition includes the declarations of members who live, work, own property, or recreate near the proposed site of the Pa'ina irradiator, including declarations of members who work approximately 1/2 mile from the proposed site, as well as members who frequently fly in and out of the airport on runways immediately adjacent to the site.¹³ The declarations indicate that the members have authorized the Petitioner to represent them in this proceeding.

The Petitioner further alleges that the construction and operation of the proposed irradiator would "subject Concerned Citizens' members to threats of radiation exposure from incidents including, but not limited to, mechanical failures, power outages, airplane accidents, acts of sabotage or terrorism, hurricanes, and tsunamis."¹⁴ The NRC Staff concedes that the Petitioner has properly shown an injury-in-fact by alleging potential injury to its members from radiation exposure caused by the Petitioner's asserted accidents and natural disasters.¹⁵ Similarly, the Staff concedes that the asserted injury to the Petitioner's members is within the zone of interests protected by the AEA and the injury is redressable by agency action.¹⁶ For its part, the Applicant does not address in its answer the Petitioner's standing, thereby necessarily waiving any standing challenge.

It has been well settled that the threat of injury from radiation exposure is sufficient to satisfy the "injury in fact" requirement of traditional standing.¹⁷ A threatened unwanted exposure to radiation, even a minor one, is sufficient to establish an injury.¹⁸ Further, it is axiomatic that the asserted radiation exposure

¹¹ See *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999).

¹² Hearing Request at 2.

¹³ See Hearing Request, Declaration of Brian Coulson (Oct. 2, 2005) ¶2; Declaration of Marie-Therese Knoll (Sept. 30, 2005) ¶¶ 2-4; Declaration of David Paulson (Oct. 3, 2005) ¶3; Declaration of Grace Simmons (Sept. 29, 2005) ¶2.

¹⁴ Hearing Request at 7-8.

¹⁵ See Staff Answer at 4-5.

¹⁶ See *id.* at 5.

¹⁷ See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 216 (2003); see also *Duke Power Co. v. Carolina Environmental Study Group, Inc.*, 438 U.S. 59, 74 (1978).

¹⁸ See *Millstone*, CLI-03-14, 58 NRC at 216.

is within the zone of interests protected by the AEA. Therefore, the Petitioner has demonstrated a concrete injury-in-fact.

To demonstrate causation, the Petitioner must show that the injury is fairly traceable to the proposed action.¹⁹ The proposed irradiator will not be operated without approval and a license from the NRC; therefore, the risk of radiation exposure from it is directly traceable to the challenged license application. Thus, there is no question as to whether the Petitioner has demonstrated the requisite causation.

The Petitioner has also adequately demonstrated that its injuries are likely to be redressed by a favorable decision. In order to satisfy the third element of standing “it must be ‘likely,’ as opposed to merely ‘speculative’ that the injury will be ‘redressed by a favorable decision.’”²⁰ Here it is obvious, as the Petitioner argues, that a denial or substantial modification of the license application addressing the posited dangers “would help avoid or minimize the threats to public health and safety and to the environment that would otherwise harm Concerned Citizens.”²¹ Therefore, we find that the Petitioner has standing to intervene in this proceeding under traditional judicial principles of standing and 10 C.F.R. § 2.309(d) of the Commission’s regulations.

In addition to the traditional requirements for standing, the Commission has recognized that a petitioner may have standing based upon its geographical proximity to a particular facility.²² In appropriate circumstances, a petitioner’s proximity to the facility in question provides for a so-called presumption that “a petitioner has standing to intervene without the need to specifically plead injury, causation, and redressability if the petitioner lives within, or otherwise has frequent contacts with, the zone of possible harm from the nuclear reactor or other source of radioactivity.”²³ Demonstrating standing in this manner requires a “determination that the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences.”²⁴ The Petitioner’s proximity to the proposed source of radioactivity must also be “judged

¹⁹ See *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 (1994).

²⁰ *Id.* at 76 (quoting *Lujan*, 504 U.S. at 561).

²¹ Hearing Request at 9.

²² See *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329-30 (1989).

²³ *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 146 (2001), *aff’d on other grounds*, CLI-01-17, 54 NRC 3 (2001).

²⁴ *Georgia Tech*, CLI-95-12, 42 NRC at 116; see *Sequoyah Fuels Corp.*, CLI-94-12, 40 NRC at 75 n.22.

on a case-by-case basis, taking into account the nature of the proposed action and the significance of the radioactive source.’’²⁵

As previously noted, the Petitioner has demonstrated its standing by establishing an injury in fact to its members traceable to the licensing of the proposed irradiator that would be redressed by the denial of the license. Thus, having already found that the Petitioner has standing, we normally would not address its geographical proximity standing. The Staff’s argument that the Petitioner has not demonstrated such standing is so wide of the mark, however, that it demands brief comment.

In effect, the Petitioner’s geographical proximity standing claim is that its members live and work in such close proximity to the proposed irradiator that placing a source of up to a million curies of radioactivity on the grounds of the Honolulu Airport, a location at ocean’s edge that is subject to unique risks of aircraft crashes and destructive wave damage from tsunamis and hurricanes, presents an obvious potential for offsite consequences to Petitioner’s members.²⁶

The Staff concedes that the Petitioner’s members are appropriately proximate to the irradiator site; therefore, the proximity of the Petitioner’s members to the facility is not at issue. The Staff claims, however, that it is impossible to have an obvious potential for offsite consequences involving an irradiator that falls within the categorical exclusion of 10 C.F.R. § 51.22(c)(14)(vii). That section exempts irradiators from the category of actions for which an environmental assessment (EA) or an environmental impact statement (EIS) must be prepared. According to the Staff, the Commission determined, in categorically excluding irradiators by regulation from the requirements of NEPA, that such facilities do not individually or collectively have a significant effect on the environment.²⁷ Therefore, they argue that the Petitioner’s standing cannot be based upon the assumption of a potential for offsite consequences from an irradiator.²⁸

²⁵ *Georgia Tech*, CLI-95-12, 42 NRC at 116-17; see *Sequoyah Fuels Corp.*, CLI-94-12, 40 NRC at 75 n.22.

²⁶ See Hearing Request at 5-7.

²⁷ See Staff Answer at 2-3. In support of its position, the Staff seemingly relies upon to the Commission’s recent decision in *Exelon Generation Co. & PSEG Nuclear, LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 580-83 (2005), in which the Commission emphasized the need to meet the second step for proximity standing, requiring a obvious potential for offsite consequences. The Staff argues that the categorical exclusion of irradiators is of “dispositive significance”; however, the Commission in *Peach Bottom* made no determination involving categorical exclusions. Its *Peach Bottom* ruling involved a merger and license transfer governed by 10 C.F.R. § 50.80. Although license transfers, like irradiators, are categorically excluded from NEPA review pursuant to 10 C.F.R. § 51.22(c) except when special circumstances are present, the Commission made no mention in its *Peach Bottom* decision of a categorical exclusion, nor did it suggest that such a determination would be dispositive of the issue for proximity standing.

²⁸ See Staff Answer at 3-4.

The Staff's argument conveniently ignores that the Petitioner's proximity standing claim is based upon the exception provided in 10 C.F.R. § 51.22(b) for categorical exclusions established in section 51.22(c). The former section provides that the Staff need not prepare an EA or an EIS for any action categorically excluded "[e]xcept in special circumstances."²⁹ Here, the Petitioner claims the categorical exclusion for irradiators is inapplicable because special circumstances (i.e., aircraft crashes, tsunamis, and hurricanes) unique to the proposed location of this irradiator make the requirements of NEPA fully applicable. In the circumstances asserted, it neither strains credulity nor offends reason to conclude that placing an irradiator in a location subject to the risks of aircraft crashes, tsunamis, and hurricanes presents an obvious potential for offsite consequences from the significant source of radioactivity housed within the irradiator. Accordingly, contrary to the Staff's argument, the Petitioner also has standing under the geographical proximity presumption.

II. CONTENTIONS

In addition to demonstrating standing, a petitioner must also proffer at least one admissible contention to be admitted as a party to a proceeding. *See* 10 C.F.R. § 2.309(a). The Commission's contention pleading requirements are found at 10 C.F.R. § 2.309(f)(1)(i)-(vi), and incorporate the prior contention pleading requirements of old 10 C.F.R. § 2.714 (2003).³⁰ The regulations require that a request for hearing set forth with particularity the contentions sought to be raised. *See* 10 C.F.R. § 2.309(f)(1). Specifically, each contention must: (1) provide a specific statement of the issue of law or fact to be raised or controverted; (2) provide a brief explanation of the basis for the contention; (3) demonstrate that the issue raised in the contention is within the scope of the proceeding; (4) demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding; (5) provide a concise statement of the alleged facts or expert opinion that support the petitioner's position and on which the petitioner intends to rely at hearing, including references to specific sources and documents that will be relied upon to support its position on the issue; and (6) provide sufficient information to show that a genuine dispute on a material issue of law or fact exists with the applicant, which consists of either (a) references to specific portions of the application (including the applicant's environmental and safety reports) that are disputed

²⁹ 10 C.F.R. § 51.22(b).

³⁰ The pleading requirements of 10 C.F.R. § 2.714(b) appear in the new regulations in 10 C.F.R. § 2.309(f)(1)(i), (ii), (v), and (vi). Section 2.309(f)(1)(iii)-(iv) additionally requires that a contention be within the scope of a proceeding and material.

and the reasons supporting the dispute, or (b) identification of each instance where the application purportedly fails to contain information on a relevant matter as required by law and the reasons supporting the allegation. *See* 10 C.F.R. § 2.309(f)(1)(i)-(vi).

The contention pleading requirements of 10 C.F.R. § 2.309(f) are meant to “focus litigation on concrete issues and result in a clearer and more focused record for decision.”³¹ Accordingly, contention admissibility is “strict by design,” requiring more than notice pleading.³² However, the petitioner is not required to provide an exhaustive discussion in its proffered contention, so long as it meets the Commission’s admissibility requirements. Further, contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications.³³

With the standards provided in 10 C.F.R. § 2.309(f)(1) and Commission case law as guidance, we review Petitioner’s environmental contentions. The Petitioner has proffered two separate contentions challenging the Staff’s satisfaction of the requirements of NEPA.³⁴ Both NEPA contentions relate to the Staff’s application of the categorical exclusion of irradiators in 10 C.F.R. § 51.22(c)(14)(vii) that excuses the Staff from performing an environmental impact analysis of a proposed irradiator. Specifically, the contentions challenge the procedure by which the categorical exclusion was invoked in this instance, as well as the applicability of 10 C.F.R. § 51.22(b), which provides a special circumstances exception for actions in which a blanket finding is made by rule that the licensing action does not have a significant effect on the human environment.

The Petitioner’s first environmental contention states that “the NRC unlawfully failed to consider whether any extraordinary circumstances precluded application of the categorical exclusion to Pa’ina Hawaii’s license application.”³⁵ Relying upon a series of precedents in the United States Court of Appeals for the Ninth Circuit, the federal circuit encompassing Hawaii, the Petitioner asserts that the Staff has omitted a necessary step in its NEPA analysis, which in essence requires an explanation of the applicability of a categorical exclusion where special circumstances necessitating an environmental review have been alleged.³⁶

³¹ 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004). *See also Business and Professional People for the Public Interest v. Atomic Energy Commission*, 502 F.2d 424, 428 (D.C. Cir. 1974).

³² *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *petition for reconsideration denied*, CLI-02-1, 55 NRC 1 (2002).

³³ *See* 10 C.F.R. § 2.335.

³⁴ *See* Hearing Request at 19-20.

³⁵ *Id.* at 19.

³⁶ *See id.* at 19-20; Petitioner’s Reply in Support of Its Request for Hearing (Dec. 1, 2005) at 23-24 [hereinafter Petitioner’s Reply]; *see also Alaska Center for the Environment v. U.S. Forest Service*, (Continued)

According to the Petitioner, an explanation is required because ‘‘the NRC ‘cannot avoid its statutory responsibilities under NEPA merely by asserting that an activity it wishes to pursue will have an insignificant effect on the environment.’ ’’³⁷

Both the Applicant and the Staff argue that the Petitioner’s contention is nothing more than a challenge to the NRC’s regulation establishing the categorical exclusion for irradiators, and therefore an unlawful attack on Commission regulations prohibited by 10 C.F.R. § 2.335(a).³⁸ The thrust of the Petitioner’s contention, however, is that the agency improperly invoked the categorical exclusion by not addressing what it asserts are special circumstances making such an exclusion inapplicable here — a point the Applicant and the Staff completely ignore. In their answers, neither the Staff nor the Applicant even mentions the cases relied upon by the Petitioner, much less disputes the Petitioner’s reading of the Ninth Circuit case law requiring an explanation of the NRC’s use of a categorical exclusion and the presence, or absence, of special circumstances. Nor do the Staff or the Applicant point to any countervailing rulings from other circuits questioning the Ninth Circuit precedents (applicable to Hawaii) relied upon by the Petitioner. Instead, the Staff claims that there is ‘‘no credible basis to conclude that the types of irradiation or the location of the irradiator, or specific proposals for operating the irradiator are in any way outside the envelope of characteristics that were considered in the Commission’s rulemaking decision

189 F.3d 851, 859 (9th Cir. 1999); *Jones v. Gordon*, 792 F.2d 821, 828 (9th Cir. 1986); *Steamboaters v. Federal Energy Regulatory Commission*, 759 F.2d 1382 (9th Cir. 1985). Other circuit courts appear to reach the same result as the Ninth Circuit. *See, e.g., Wilderness Watch & Public Employees for Environmental Responsibility v. Mainella*, 375 F.3d 1085, 1096 (11th Cir. 2004) (‘‘At a minimum, the agency should have recognized that these exceptions ‘may’ apply. Courts of Appeals have, on occasion, reversed agency invocations of categorical exclusions that failed to consider the relevant Interior Department exceptions’’).

³⁷ Hearing Request at 19 (quoting *Jones v. Gordon*, 792 F.2d at 828).

³⁸ *See* Applicant Answer at 11; Staff Answer at 15. The Applicant also asserts, without more, that the contention is outside the scope of this proceeding ‘‘because the NRC published its explicit notice that ‘categorical exclusion’ had been afforded to Pa’ina.’’ Applicant Answer at 11. In the notice of opportunity for hearing the Commission stated: ‘‘Before approving the proposed license, the NRC will need to make the findings required by the Atomic Energy Act of 1954, as amended, and NRC’s regulations. An environmental assessment for this licensing action is not required, since this action is categorically excluded under the provisions of 10 CFR 51.22(c)(14)(vii).’’ 70 Fed. Reg. at 44,396. Contrary to the Applicant’s assertion, the Commission’s hearing notice cannot properly be read to place challenges to the agency’s use of the categorical exclusion for an irradiator outside the purview of this proceeding because 10 C.F.R. § 51.22(b) specifically bestows upon any interested person the right to challenge the use of a categorical exclusion by presenting special circumstances. Thus, to read the notice as the Applicant contends would be tantamount to ruling that the agency need not comply with its own regulations. *See, e.g., Fort Stewart Schools v. Federal Labor Relations Authority*, 495 U.S. 641, 654 (1990) (‘‘It is a familiar rule of administrative law that an agency must abide by its own regulations’’).

to grant the categorical exclusion.”³⁹ But the Staff’s argument that there is no credible basis from which to conclude that the Commission did not consider all possible locations for irradiators in adopting the categorical exclusion for such facilities does not negate the Petitioner’s contention, supported by Ninth Circuit precedents, that the agency must affirmatively provide a reasoned explanation of the applicability of the categorical exclusion in the circumstances presented.

Moreover, the Staff’s argument, and a similar one by the Applicant,⁴⁰ is belied by the regulatory history of 10 C.F.R. § 51.22 — a highly relevant history that the Staff and the Applicant do not address. The regulatory history of the categorical exclusion of irradiators in 10 C.F.R. § 51.22(c)(14)(vii) is important for what it does not say. It merely provides a brief description of an irradiator and states that “personnel exposures during use of these devices are less than 5% of the limits in 10 C.F.R. Part 20.”⁴¹ Such history certainly does not support the view that the risks associated with the myriad possible locations for siting an irradiator were considered by the Commission in adopting the categorical exclusion. Conversely and more importantly, however, the regulatory history of the special circumstances exception to the categorical exclusions in 10 C.F.R. § 51.22(b) indicates that the location of an irradiator may be a circumstance in which the exclusion might not apply. In addressing “special circumstances,” the Commission made clear that it intended the term to be flexible, stating that “[a] major purpose of proposed section 51.22(b) is to preserve this necessary flexibility. In addition, it is impossible to identify in advance the precise situations which might move the Commission in the future to determine special circumstances exist. Therefore, the term ‘special circumstances’ has not been further defined.”⁴² Thus, the regulatory history does not even hint that the Commission considered the possible locations for proposed facilities in adopting the categorical exclusion for irradiators, while the history of the special circumstances exception indicates that the consequences of siting an irradiator on the ocean’s edge at the Honolulu Airport, subject to the risks of aircraft crashes, tsunamis, and hurricanes, are precisely the kind of circumstances for which the categorical exclusion might not be appropriate.

The proposed location of the Pa’ina Hawaii irradiator is not immune from the hazards posed by natural disasters and potential aircraft crashes that the Petitioner posits as special circumstances, and the Staff has failed to provide any reason to conclude that the threats endemic to this proposed site have ever been considered. The Staff’s glib answer that there is nothing to suggest location was not considered in the rulemaking casts the issue entirely incorrectly, implying that,

³⁹ Staff Answer at 16.

⁴⁰ See Applicant Answer at 11-12.

⁴¹ 49 Fed. Reg. 9352, 9377 (Mar. 12, 1984).

⁴² *Id.* at 9366.

in every instance of rulemaking in which, as here, there is no indication a matter was considered, we must assume it was, in fact, considered. Indeed, the Staff's approach only begs the question whether any location would prompt the Staff to consider special circumstances associated with a proposed siting. For example, it is virtually certain that the Commission did not specifically consider the risks associated with placing an irradiator in the caldera of Kilauea; however, the Staff would have us believe that the risks associated with the unique location of this irradiator were necessarily considered in the generic forum for establishing the rule providing for the categorical exclusion — a wholly unsupported proposition.

Although not directly relevant to the first contention, the Applicant nevertheless challenges the Petitioner's factual foundation for its claim that the proposed irradiator site is subject to the risk of tsunamis, hurricanes, and airplane crashes. The Applicant alleges that "there are simply no facts" to support the Petitioner's claims.⁴³ The Petitioner's factual support related to its concerns of wave run-up from tsunamis and hurricanes includes the affidavit of Marvin Resnikoff, Ph.D., the O'ahu Civil Defense Agency's Tsunami Map and hurricane reference, as well as a newspaper reference discussing tsunami zones in Hawaii.⁴⁴ With respect to aircraft crashes, the Petitioner cites a National Transportation Safety Board Aviation Accident Database Query and the Resnikoff Declaration for the proposition that aviation accidents occur on average more than twice a year at the Honolulu International Airport, as support for its claim that the proposed location's vulnerability constitutes a special circumstance vis-a-vis aircraft crashes.⁴⁵ While not explicitly challenging these factual premises in its response to Petitioner's environmental contentions, the Applicant does so in seeking to refute the Petitioner's factual support in its discussion of the safety contentions.⁴⁶ Specifically, the Applicant asserts that the proposed location is shielded from the threat of tsunamis by natural land formations and relies upon a letter from the Hawaii State Department of Transportation for support.⁴⁷ Additionally, the Applicant refers to the regulatory history of the design requirements of 10 C.F.R. § 36.39 that discuss a lack of siting prohibitions for a different kind of irradiator sited near airports and within tidal wave risk areas, although, as noted by the Applicant, the proposed

⁴³ Applicant Answer at 11.

⁴⁴ See Hearing Request at 5-6, 15; see also Declaration of Marvin Resnikoff, Ph.D. (Sept. 30, 2005) ¶¶ 10, 23 [hereinafter Resnikoff Decl.]. The facts relied on by the Petitioner to support its NEPA contentions were first introduced, and most completely described, in its standing discussion. These same supporting facts are necessarily relevant to the Petitioner's subsequent arguments pertaining to natural phenomena and airplane crashes found in the Petitioner's safety contentions and NEPA contentions. See Hearing Request at 5-6, 15, 19-21.

⁴⁵ See Hearing Request at 5; Resnikoff Decl. ¶ 24.

⁴⁶ See Applicant Answer at 11-12, 28-31.

⁴⁷ See *id.* at 28.

Pa'ina Hawaii irradiator lacks the safety structures (i.e., 6-foot-thick reinforced-concrete shielding walls encapsulated in steel) of the irradiators referenced by the Commission.⁴⁸ These references, however, address the requirements of 10 C.F.R. Part 36, not the requirements of NEPA or 10 C.F.R. Part 51 which are at issue here.⁴⁹ Moreover, the Applicant's challenges establish that factual disputes exist, but the resolution of such disputes is not the appropriate subject of our inquiry at the contention admission stage of the proceeding. Rather, they are matters going to the merits of any such factual disputes.

The Petitioner's first proffered environmental contention is squarely within the scope of this proceeding. The Staff's legal obligations under the Commission's regulations and NEPA and its satisfaction of those obligations are at issue. In a nutshell, the Petitioner's contention alleges that controlling precedent from the Ninth Circuit Court of Appeals requires an explanation by the Staff as to why a categorical exclusion is appropriate here and perforce why special circumstances are not present. This allegation provides a specific issue of law to be controverted and the legal basis for its contention.⁵⁰ Hence, the Petitioner's first NEPA contention satisfies all necessary pleading requirements of 10 C.F.R. § 2.309(f) and is admitted.

While the Petitioner's first environmental contention challenges the Staff's failure to demonstrate why a categorical exclusion is appropriate (i.e., why special circumstances are not present), its second environmental contention affirmatively asserts that special circumstances are present that preclude the application of the categorical exclusion and require an "environmental impact statement or, at minimum, an environmental assessment."⁵¹ Specifically, the contention addresses three categories of special circumstances: (1) risks associated with the proposed location from hurricanes, tsunamis, and airplane crashes; (2) risks of terrorism; and (3) health effects of consumption of irradiated fruit. With respect to the first category, the Petitioner argues that the irradiator's location — adjacent to an international airport on the ocean's edge — exposes it to threats of hurricanes, tsunamis, and airplane crashes, a situation that creates special circumstances.⁵² Challenging the Petitioner's contention, the Staff incorporates by reference its argument with respect to the first NEPA contention.⁵³ The Applicant does not differentiate between the first two NEPA contentions, but instead generally argues

⁴⁸ See *id.* at 28-31; 58 Fed. Reg. 7715, 7726 (Feb. 9, 1993). It does not appear that the Applicant specifically disputes the Petitioner's claims related to the asserted risk of hurricanes.

⁴⁹ See Applicant Answer at 28-31.

⁵⁰ See Hearing Request at 19; *Alaska Center for the Env't v. U.S. Forest Service*, 189 F.3d at 859; *Jones v. Gordon*, 792 F.2d at 828.

⁵¹ Hearing Request at 20.

⁵² See *id.*

⁵³ See Staff Answer at 16.

that any NEPA contention based on the risks of hurricanes, tsunamis, and airplane crashes is an impermissible attack on NRC regulations, outside the scope of this proceeding, and lacks a factual premise.⁵⁴

By asserting that the irradiator's location at ocean's edge and the threats associated with its location constitute special circumstances, the Petitioner has identified a specific omission in the Staff's analysis it plans to challenge and the basis for its allegations. By describing the hurricanes, tsunamis, and airplane crashes that could affect the site, the Petitioner has alleged the facts it intends to rely on to demonstrate that special circumstances are present requiring an EA or EIS. As previously noted, the Petitioner's discussion of the dangers associated with natural phenomena and aviation accidents, and its factual support for such dangers, are set forth in the Petitioner's standing and safety contentions discussion which references its related claims under NEPA.⁵⁵ With respect to the portion of the Petitioner's second environmental contention alleging special circumstances stemming from the threats of tsunamis, hurricanes, and aviation accidents, the Petitioner again has proffered a contention meeting the necessary pleading requirements of 10 C.F.R. § 2.309(f) and it is admitted.

With respect to the second category of alleged special circumstances, the Petitioner argues that the proposed irradiator presents "significant risks associated with a terrorist attack," thus requiring the preparation of an environmental analysis pursuant to NEPA.⁵⁶ In this portion of its contention, the Petitioner recognizes that the Commission has reached a contrary conclusion, holding that the impacts of terrorism need not be considered as part of the agency's NEPA analysis for licensing decisions, but suggests the Commission decision was wrongly decided.⁵⁷ Both the Applicant and the Staff point to the same Commission decision, *Diablo Canyon*, CLI-03-1, 57 NRC 1, and argue that this portion of the contention is clearly outside the scope of this proceeding.⁵⁸ Subsequently, in its reply, the Petitioner asks us to reserve judgment on this aspect of its contention until an appeal of the *Diablo Canyon* decision pending in Ninth Circuit Court of Appeals is decided.⁵⁹ We see no sound reason to withhold ruling on the proffered contention. Barring any future developments overruling current controlling Commission precedent, the portion of the Petitioner's second environmental

⁵⁴ See Applicant Answer at 10-12.

⁵⁵ See *supra* p. 111 & note 44.

⁵⁶ Hearing Request at 21.

⁵⁷ See *id.* at 21 n.5; *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-03-1, 57 NRC 1 (2003); see also *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 347 (2002) (also finding terrorism to be outside the scope of agency NEPA review).

⁵⁸ See Applicant Answer at 32-33; Staff Answer at 16.

⁵⁹ See Petitioner's Reply at 25 n.15.

contention, asserting that the risks associated with terrorist attacks require that the agency prepare an EA or EIS for the proposed irradiator facility, is inadmissible.

Finally, the Petitioner's contention raises a question concerning the health effects of irradiated fruit, specifically the genotoxic effects of compounds found in irradiated papayas and mangos, as a third category of special circumstances requiring NEPA review.⁶⁰ Although the Petitioner acknowledges that fruits and vegetables were generically approved for irradiation by the FDA in 1986,⁶¹ it argues that the Commission did not contemplate the irradiation of any food when it promulgated the categorical exclusion of irradiators and, therefore, the specific environmental impacts of irradiating papayas and mangos must be addressed.⁶² As support, the Petitioner relies on the declaration of its expert, Dr. William W. Au, who asserts that compounds created by the irradiation of papaya and mango may present health risks.⁶³ The Applicant contends that challenges related to irradiated foods are outside the jurisdiction of the NRC and must be addressed by either the United States Food and Drug Administration (FDA) or the United States Department of Agriculture (USDA).⁶⁴ For its part, the Staff argues that the Petitioner has "failed to explain how irradiation of food differs from any other possible paths of human consumption already considered or to offer any factual basis to support a contention."⁶⁵

Although the Petitioner argues that the irradiation of papayas and mangos causes adverse human health impacts, it presents only speculation, not facts, to support its claim. The Petitioner's own expert states that "[i]n the final analysis, the only thing certain about the impacts on human health associated with the consumption of irradiated food, including papayas and mangos, and other produce proposed to be processed at the Pa'ina Hawaii facility, is that it is the subject of considerable scientific debate."⁶⁶ Further, in its hearing request, the Commission noted that it is the responsibility of the FDA and the USDA to determine the food types used for human consumption that may be safely irradiated.⁶⁷ In light of these factors, the Petitioner's speculative claim concerning the possible health effects of irradiating papayas and mangos does not arise to the level of special circumstances necessary to invoke the exception under 10 C.F.R. § 51.22(b) for the categorical

⁶⁰ See Hearing Request at 22-24.

⁶¹ See Hearing Request, Exh. M, Food Irradiation — Frequently Asked Questions; *see also* 51 Fed. Reg. 13,376, 13,376 (Apr. 18, 1986).

⁶² See Hearing Request at 23.

⁶³ See *id.*, Declaration of Dr. William W. Au (Sept. 29, 2005) ¶ g [hereinafter Au Decl.].

⁶⁴ See Applicant Answer at 13-14.

⁶⁵ Staff Answer at 17.

⁶⁶ Au Decl. ¶ h.

⁶⁷ See 70 Fed. Reg. at 44,396.

exclusion of irradiators. Accordingly, the portion of the Petitioner's second environmental contention related to the safety of irradiated food is inadmissible.

As noted by the Staff, the Petitioner's two NEPA contentions raise "substantially similar" issues.⁶⁸ While at this stage in the proceeding the proffered contentions individually present distinct challenges to the Staff's actions under the Commission's regulations and NEPA, the unique procedural considerations presented by the contentions may dictate that, after consultation with the parties, the contentions be consolidated, or that one or the other be held in abeyance because it likely will become moot.

III. CONCLUSION

For the foregoing reasons, we find that the Petitioner has standing to intervene. Further, we find that the Petitioner's first environmental contention is admissible and that the first portion of the Petitioner's second environmental contention is admissible. Accordingly, the Petitioner's request for a hearing is granted.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD⁶⁹

Thomas S. Moore, Chairman
ADMINISTRATIVE JUDGE

Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

Rockville, Maryland
January 24, 2006

⁶⁸ Staff Answer at 16.

⁶⁹ Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Applicant Pa'ina Hawaii, LLC; (2) Intervenor Concerned Citizens of Honolulu; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alex S. Karlin, Chairman
Dr. Anthony J. Baratta
Lester S. Rubenstein

In the Matter of

Docket No. 50-271-OLA
(ASLBP No. 04-832-02-OLA)

ENTERGY NUCLEAR VERMONT
YANKEE, LLC, and ENTERGY
NUCLEAR OPERATIONS, INC.
(Vermont Yankee Nuclear Power
Station)

January 31, 2006

The Board denies a motion by Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc., for summary disposition of New England Coalition Contention 3 because the motion failed to show that there are no genuine issues of material fact in dispute, as required by 10 C.F.R. §§ 2.1205(c) and 2.710(d)(2).

RULES OF PRACTICE: SUMMARY DISPOSITION

In a Subpart L proceeding, the Board must apply the summary disposition standard set forth in Subpart G. 10 C.F.R. § 2.1205(c). Under the Subpart G standard, summary disposition is proper only “if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.” 10 C.F.R. § 2.710(d)(2).

RULES OF PRACTICE: SUMMARY DISPOSITION (REPLY BRIEFS ON MOTIONS); MOTIONS (REPLIES TO RESPONSES)

Although there is no right to reply to an answer to a motion for summary disposition, if the answer contains an allegation that is plainly and factually incorrect, the moving party can request the opportunity to respond and to correct the record. *See* 10 C.F.R. § 2.323(c).

RULES OF PRACTICE: SUMMARY DISPOSITION (GENUINE DISPUTED ISSUE OF FACT)

The fact that the NRC Staff may agree with the moving party's factual or technical positions, either informally or in a formal document such as a Safety Evaluation Report, does not "resolve" the dispute or mean that there is no genuine issue of material fact in dispute.

RULES OF PRACTICE: SUMMARY DISPOSITION (EXPERT OPINION; GENUINE DISPUTED ISSUE OF FACT)

When conflicting expert opinions are involved, summary disposition is rarely appropriate. *See, e.g., Phillips v. Cohen*, 400 F.3d 388, 399 (6th Cir. 2005). At the summary disposition stage, it is not proper for a board "to untangle the expert affidavits and decide 'which experts are more correct.'" *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-39, 54 NRC 497, 510 (2001) (citation omitted). Factual disputes of this nature are to be resolved at an evidentiary hearing, where the Board has the opportunity to examine witnesses, probe the documents, and *weigh* the evidence.

RULES OF PRACTICE: SUMMARY DISPOSITION (EXPERT OPINION; GENUINE DISPUTED ISSUE OF FACT)

The rule that a presiding officer may not "untangle the expert affidavits and decide 'which experts are more correct'" does not apply if an expert asserts a factual or technical position that is so patently incorrect or absurd (e.g., that the world is flat) that a presiding officer must reject that position as constituting a genuine dispute.

RULES OF PRACTICE: SUMMARY DISPOSITION (IMPROPER PURPOSE)

Recognizing that our rules require that the opponent of a motion for summary disposition respond to each of the "material facts" listed by the movant, admitting or denying each of them, and must set forth specific facts, by affidavit or otherwise,

showing that there are genuine issues of fact, *see* 10 C.F.R. § 2.710(a)-(b), it is an abuse of the adjudicatory process to use a motion for summary disposition as a subterfuge for the filing of interrogatories, requests for admission, or other discovery; as a mechanism for exhausting an impecunious litigant; or for any other extraneous purpose. If a party believes that stipulations or admissions would materially expedite or facilitate the proceeding, the party is encouraged to propose such a course to us directly, and the Board will act accordingly. *See* 10 C.F.R. § 2.319.

RULES OF PRACTICE: DUTY TO CONSULT

Compliance with the 10 C.F.R. § 2.323(b) requirement that a movant make a “sincere effort to contact other parties in the proceeding and to resolve the issues raised in the motion” can only be determined from the objective reasonableness of the movant’s efforts, as shown by all the facts and circumstances, not by his or her subjective intent.

RULES OF PRACTICE: DUTY TO CONSULT

Where a party had 10 months within which to prepare a motion, the last-minute timing of a consultation telephone call, on the last day that the motion could be filed, strongly indicates that there was no sincere effort, as is required by 10 C.F.R. § 2.323(b), to resolve the issues before filing the motion.

RULES OF PRACTICE: DUTY TO CONSULT

Even if the party moving for summary disposition thinks that the effort might be futile (i.e., that there would be little or no chance that the other party would agree to abandon its contention), some reasonable effort at consultation is required by 10 C.F.R. § 2.323(b).

TECHNICAL ISSUES DISCUSSED

The following technical issue is discussed: Large Transient Testing.

**MEMORANDUM AND ORDER
(Denying Motion for Summary Disposition of New England
Coalition Contention 3)**

Before the Board is a motion by Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (collectively, Entergy), for summary disposition

of New England Coalition (NEC) Contention 3.¹ The Board denies the motion because Entergy failed to show that there are no genuine issues of material fact in dispute, as required by 10 C.F.R. §§ 2.1205(c) and 2.710(d)(2).

I. BACKGROUND

A. Procedural Posture

On September 10, 2003, Entergy submitted an application for an extended power uprate (EPU) for the Vermont Yankee Nuclear Power Station (Vermont Yankee) in Windham County, Vermont. Specifically, Entergy seeks a license amendment authorizing it to increase the maximum power level of the plant by 20%, from 1593 megawatts thermal (MWt) to 1912 MWt, and to modify associated technical specifications of the license. After receiving Entergy's EPU request, the Commission published a notice of opportunity for hearing, 69 Fed. Reg. 39,976 (July 1, 2004), and the Department of Public Service of the State of Vermont and NEC filed petitions to intervene. On November 22, 2004, we granted the Petitioners' hearing requests and admitted four of the proposed contentions. LBP-04-28, 60 NRC 548 (2004). One of those contentions, NEC Contention 3, is the subject of this summary disposition motion. NEC Contention 3 challenges Entergy's request for an exception from performing large transient testing (LTT). As admitted by the Board, that contention states: "The license amendment should not be approved unless Large Transient Testing is a condition of the Extended Power Uprate." *Id.* at 580.

On December 2, 2005, pursuant to 10 C.F.R. § 2.1205, Entergy filed the instant motion for summary disposition of NEC Contention 3, claiming that there is no genuine issue as to any material fact relevant to the contention and that it is entitled to a favorable decision as a matter of law. Entergy Motion at 1. Entergy's filing, which exceeds 150 pages, includes a statement of forty-one material facts on which it asserts no genuine dispute exists² and a declaration from Craig J. Nicholas, Entergy's EPU Project Manager, which is supported by twenty exhibits.³ The essence of Entergy's claim is that the facts and opinions expressed by NEC's expert, Mr. Arnold Gundersen, in support of the admissibility of its contentions "are refuted by conclusive technical evidence" and thus do not warrant a hearing. Entergy Motion at 3. Entergy presents facts and technical

¹ Entergy's Motion for Summary Disposition of New England Coalition Contention 3 (Dec. 2, 2005) [Entergy Motion].

² Entergy Motion, Statement of Material Facts Regarding NEC Contention 3 on Which No Genuine Dispute Exists (Dec. 2, 2005) [Entergy Statement of Material Facts].

³ Entergy Motion, Declaration of Craig J. Nichols (Dec. 2, 2005) [Nichols Decl.].

evidence, which it asserts are undisputed and which can be divided into four basic statements:

- (1) The analytical tools used by Entergy will accurately predict plant performance in large transient events under EPU conditions;
- (2) Operational experience in the United States and abroad justifies the granting of the exception;
- (3) The Vermont Yankee operational experience justifies the requested exception;
- (4) Component testing at Vermont Yankee provides assurance that the plant's safety systems will operate as intended during transient conditions.

Id. at 5-12.

NEC submitted its answer opposing Entergy's motion on December 23, 2005.⁴ NEC's answer is supported by a statement of material facts alleged to be in dispute⁵ and a declaration from Dr. Joram Hopenfeld.⁶ NEC asserts that Entergy failed to demonstrate that no genuine material dispute exists and points to a number of factual disputes related to Entergy's four assertions. NEC Answer at 9-11. NEC also makes two procedural arguments, arguing that Entergy's motion should be denied because it is untimely and because Entergy failed to comply with the consultation requirement of 10 C.F.R. § 2.323(b). *Id.* at 6-7.

The NRC Staff (Staff) submitted its answer, along with the affidavit of Richard B. Ennis, Steven R. Jones, Robert L. Pettis, Jr., and George Thomas on December 22, 2005.⁷ The Staff supports Entergy's motion. NRC Staff Answer at 1, 5. The essence of the Staff's position seems to be that there is no genuine dispute of material fact because the Staff agrees with Entergy's position on each of the factual and technical issues raised by NEC Contention 3 and therefore these

⁴New England Coalition's Answer to Entergy's Motion for Summary Disposition of New England Coalition Contention 3 (Dec. 23, 2005) [NEC Answer]. NEC also submitted a request for extension of time to file its answer because the NRC record retrieval system, ADAMS, was down for service for 2 days during the week before NEC's motion was due, which prevented NEC from meeting the December 22, 2005 filing deadline. *See* New England Coalition's Request for Extension of Time (Dec. 23, 2005). That request is hereby granted.

⁵NEC Answer, New England Coalition's Answer to Entergy's Statement of Material Facts Regarding NEC Contention 3 (Dec. 22, 2005) [NEC Material Facts Answer].

⁶NEC Answer, Exh. 1, Declaration of Dr. Joram Hopenfeld Supporting New England Coalition's Response to ENVY's Motion for Summary Disposition (Dec. 21, 2005) [Hopenfeld Decl.].

⁷NRC Staff's Answer to Entergy's Motion for Summary Disposition of New England Coalition Contention 3 (Dec. 22, 2005) [NRC Staff Answer]; *id.*, Affidavit of Richard B. Ennis, Steven R. Jones, Robert L. Pettis, Jr., and George Thomas (Dec. 21, 2005) [Ennis et al. Aff.].

factual disputes “have been resolved.”⁸ Because the Staff’s views differ from Entergy’s on only a few minor points, the Staff’s answer is discussed only where it raises significant additional points.

B. Legal Standard for Summary Disposition

In a Subpart L proceeding, such as this one, the Board must apply the summary disposition standard set forth in Subpart G. 10 C.F.R. § 2.1205(c). In general, the Commission applies the same standard that the federal courts apply when ruling on motions for summary judgment under Rule 56 of the Federal Rules of Civil Procedure. *Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993).⁹ Under the Subpart G standard, summary disposition is proper

if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.

10 C.F.R. § 2.710(d)(2). Summary disposition “is not a tool for trying to convince a Licensing Board to decide, on written submissions, genuine issues of material fact that warrant resolution at a hearing.” *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-39, 54 NRC 497, 509 (2001) (emphasis removed).

The moving party bears the burden of demonstrating that there is no genuine issue as to any material fact. 10 C.F.R. § 2.325; *Advanced Medical*, CLI-93-22, 38 NRC at 102. Summary disposition may be granted only if the truth is clear. *Poller v. Columbia Broadcasting System, Inc.*, 368 U.S. 464, 467 (1962). Any doubt as to the existence of a genuine issue of material fact is resolved against the moving party. *Advanced Medical*, CLI-93-22, 38 NRC at 102. Because the

⁸ NRC Staff Answer at 1, 5. “[T]he Staff submits that each of the issues raised by NEC in Contention 3 and its supporting basis statements *have [sic] been resolved*, and there is no genuine dispute of material fact with respect to this contention.” *Id.* at 1 (emphasis added). “[T]he Staff concluded, *inter alia*, that the Applicant’s justifications for not conducting large transient testing *were adequate*.” *Id.* at 5 (emphasis added). “[T]he Staff agrees with the Applicant . . . that each of the issues raised in NEC Contention 3 *have [sic] been resolved*.” *Id.* (emphasis added). “[T]he Draft SE concluded that the Applicant had provided *adequate justification* for not conducting post-uprate large transient testing.” *Id.* at 7 (emphasis added). “[T]he Staff has concluded that the Applicant’s Statement of Material Facts is correct, except in certain limited respects.” *Id.* at 8 (emphasis added).

⁹ *Advanced Medical Systems* construes the prior version of the summary disposition regulation, 10 C.F.R. § 2.749 (2004). The current regulations, 10 C.F.R. §§ 2.1205 and 2.710, are substantially similar.)

burden is on the moving party, the Board must examine the record in the light most favorable to the nonmoving party and give the nonmoving party the benefit of all favorable inferences that can be drawn from the evidence. *Id.*

The moving party fails to meet its burden when the filings demonstrate the existence of a genuine material fact, when the evidence introduced does not show that the nonmoving party's position is a sham, when the matters presented fail to foreclose the possibility of a factual dispute, or when there is an issue as to the credibility of the moving party's evidentiary material. 10A Charles Alan Wright et al., *Federal Practice & Procedure* § 2727 (3d ed. 1998). If the moving party has satisfied its initial burden, the party opposing the motion may not rest upon "mere allegations or denials," but must submit rebutting evidence setting forth "specific facts showing that there is a genuine issue of fact" to be tried. 10 C.F.R. § 2.710(b); *Advanced Medical*, CLI-93-22, 38 NRC at 102.

In addition to these generally applicable principles, it must be noted that when conflicting expert opinions are involved, summary disposition is rarely appropriate. *See, e.g., Phillips v. Cohen*, 400 F.3d 388, 399 (6th Cir. 2005) ("competing expert opinions present the 'classic battle of the experts' and it [is] up to [the finder of fact] to evaluate what weight and credibility each expert opinion deserves"). "[D]ifferences among experts may occur at different factual levels: either about disputed baseline observations, or about the ultimate facts or inferences to be drawn even where baseline facts may be uncontested." *PFS*, LBP-01-39, 54 NRC at 509. Regardless of the level of the dispute, at the summary disposition stage, it is not proper for a Board "to untangle the expert affidavits and decide 'which experts are more correct.'" *Id.* at 510 (citation omitted). Factual disputes of this nature are to be resolved at an evidentiary hearing, where the Board has the opportunity to examine witnesses, probe the documents, and *weigh* the evidence.

II. ANALYSIS

The pleadings raise three main issues. First, was the motion for summary disposition timely, i.e., filed within 30 days of the issuance of the Draft Safety Evaluation Report (SER)? Second, did Entergy "show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law" as required by 10 C.F.R. §§ 2.1205(c) and 2.710(d)(2)? Third, did Entergy, before filing the motion, comply with the requirement that it make a "sincere effort to . . . resolve the issue(s) raised in the motion" as required by 10 C.F.R. § 2.323(b)? We address each issue in turn.

A. Timeliness

NEC first asserts that the Board should deny Entergy's motion, without reaching the merits of the summary disposition issue, because Entergy filed the motion more than 30 days after Entergy actually received the Draft SER and thus the motion was untimely:

[Entergy] filed its Motion for Summary Disposition of December 2, 2005; counting thirty days from the posting of the non-proprietary version of the DSER on ADAMS, November 2, 2005. However [Entergy] received (issuance of) the full (proprietary) version of the DSER thirteen days earlier on October 21, 2005.

NEC Answer at 6. NEC cites our Initial Scheduling Order (ISO) for the proposition that all motions for summary disposition must be filed no later than 30 days after the "issuance" of the Draft SER. *See* Licensing Board Initial Scheduling Order (Feb. 1, 2005) at 3 (unpublished). NEC equates receipt with issuance. *See* NEC Answer at 6. Entergy made no effort to rebut the allegation that it actually received the proprietary version of the Draft SER on October 21, 2005.¹⁰ The Staff states that it "issued" the Draft SER to the Advisory Committee on Reactor Safeguards on October 21, 2005, and to the public on November 2, 2005. NRC Staff Answer at 4-5.

The problem is created by the fact that we failed to define the term "issuance" in the ISO. We intended merely a plain-meaning interpretation of the term — that "issuance" means the release of the document to the public (e.g., posting on ADAMS). This, we assumed, would provide all parties with basically the same amount of time (30 days) within which to file motions for summary disposition. Here, however, for apparently legitimate reasons related to the vetting of the Draft SER for proprietary and confidential information, it was shared with Entergy somewhat prior to its release to the public.

Although our initial assumption was incorrect, we do not believe, in the circumstances presented here, that Entergy's motion should be denied as untimely. Entergy's interpretation of the term "issuance" was reasonable. Given that all parties have, in essence, had 10 months within which to draft and file their final motions for summary disposition,¹¹ we see little or no harm caused by the fact that Entergy saw the Draft SER for an additional 13 days. The substance of the Draft SER is of little or no consequence to the content of the instant motion for summary disposition of NEC Contention 3. Accordingly, we hold that the Draft

¹⁰ Although Entergy has no right to reply to an answer to a motion for summary disposition, if NEC's allegation was plainly and factually incorrect, Entergy could have requested the opportunity to respond and to correct the record. *See* 10 C.F.R. § 2.323(c).

¹¹ The ISO was issued on February 1, 2005. The deadline for motions for summary disposition was December 2, 2005.

SER was “issued” when it was posted on ADAMS on November 2, 2005, and that Entergy’s December 2, 2005 motion was timely.¹²

B. Genuine Issues of Material Fact

With the principles discussed in section I.B in mind, we turn to whether Entergy’s motion for summary disposition on NEC Contention 3 meets the substantive requirements of 10 C.F.R. §§ 2.1205(c) and 2.710(d). First, has Entergy shown that there are no genuine issues of material fact in dispute relating to the contention? Second, if so, is Entergy entitled to a favorable decision as a matter of law? We find that Entergy’s motion fails at the first hurdle, because NEC Contention 3 involves numerous factual and technical issues that are genuinely and hotly disputed. This is apparent almost from the beginning, when Entergy states that the statements and declaration of NEC’s expert in support of the admissibility of the contention are “refuted by conclusive technical evidence.” Entergy Motion at 3. This immediately informs us that there is a serious and substantial dispute over the evidence. But Entergy urges that the dispute is not “genuine” because Entergy’s technical and factual evidence is so overwhelmingly superior that the contention “do[es] not warrant the holding of a hearing.” *Id.* Entergy pursues this logic by submitting a substantial amount of evidence attacking the factual and technical support that NEC provided when it was merely attempting to get the contention admitted.

Our review of Entergy’s submissions and NEC’s response shows various genuine issues that exist with regard to NEC Contention 3, ranging from the differing opinions over the appropriateness of various assumptions that support Entergy’s analyses, to the strongly opposing expert opinions relating to ultimate technical judgments and conclusions. The fact that the Staff may agree with Entergy’s factual or technical positions, either informally or in a formal document such as an SER, does not “resolve” the dispute or mean that there is no genuine issue of material fact in dispute.

Positing that there is a substantial dispute over these issues, Entergy is asking us “to untangle the expert affidavits and decide ‘which experts are more correct.’”

¹²During our January 24, 2006 prehearing conference call, the Board ruled that, with regard to the Final SER, the term “issuance” as used in the ISO, and the phrase “issued and delivered” as used in LBP-06-3, 63 NRC 85, 97 (2006), are deemed to mean the day after the Staff sends a hard copy of the Final SER to all parties for next day delivery. Tr. at 762-63. The Staff has committed to send all such hard copies simultaneously and to immediately notify the Board and the parties that it has done so. Tr. at 763.

See *PFS*, LBP-01-39, 54 NRC at 510.¹³ This is not appropriate at the summary disposition stage.

The following are some brief examples of the genuine disputes that exist for each of Entergy's four assertions.

1. Analytical Tools To Accurately Predict Plant Performance in Large Transient Events

Entergy asserts that its transient analyses accurately predict Vermont Yankee's response to large transient events and thus there is no need to perform LTT. These analyses were performed using the ODYN code, which Entergy alleges is approved by the NRC. Entergy Motion at 5; Nichols Decl. ¶ 16. The analyses modeled the performance of the secondary side of the plant and potential interactions between primary and secondary systems during a transient event based on operational configurations and component and system failures that bound the transients that would occur under EPU operations. Entergy Motion at 5; Nichols Decl. ¶ 17. Based on the results of these analyses and the conclusion that the EPU will not introduce new thermal-hydraulic phenomena or new system interactions, Entergy's expert concludes the analyses accurately predict the plant response to large transient events and eliminates the need to actually perform LTT. Entergy Motion at 6; Nichols Decl. ¶¶ 18-20.

NEC argues that there is a genuine factual dispute about whether Entergy's analyses can accurately predict Vermont Yankee's response to large transient events under EPU conditions. Although NEC does not dispute that Entergy used the ODYN code, NEC's expert has presented a reasoned critique of whether the code was properly benchmarked in this instance. NEC Material Facts Answer ¶ 12; Hopenfeld Decl. ¶ 9.c. NEC also contests whether Entergy's analyses assume the full range of likely transients, suggesting that more extreme transients may in fact more accurately reflect Vermont Yankee and industry experience. NEC Material Facts Answer ¶ 16. Finally, based on all of these challenges to the assumptions behind Entergy's analyses, NEC disputes Entergy's ultimate conclusion that the Entergy analyses can accurately predict the Vermont Yankee response to large transients without the need to perform LTT. *Id.* ¶ 19; Hopenfeld Decl. ¶ 9.

Given the foregoing, it is obvious that Entergy has failed to show that there is no genuine issue of material fact as to whether Entergy's analyses can accurately

¹³This rule, however, would not apply if an expert asserts a factual and technical position that is so patently incorrect or absurd (e.g., that the world is flat) that a presiding officer must reject that position as constituting a genuine dispute. Obviously, this is not the case here. Summary disposition motions are not appropriate if a weighing of facts, evidence, or expert opinion is required to resolve the matter. *PFS*, LBP-01-39, 54 NRC at 510.

predict the Vermont Yankee response to large transient events under EPU conditions without the need to perform LTT. NEC has raised a number of material factual issues challenging the methodology and the assumptions behind Entergy's analyses. Based on these disputed factual issues, NEC also calls into question whether the analyses provide a reasonable basis to predict the Vermont Yankee response to a large transient event. At the summary disposition stage, we may not weigh these competing positions or decide whether Entergy's assumptions are truly reasonable. Likewise, we need not determine whether these analyses justify Entergy's requested exception. An evidentiary hearing is the proper venue for evaluating whether NEC's critique of the analyses raises legitimate concerns and weighs against granting an exception.

2. Operational Experience in the United States and Abroad

Entergy lists thirteen boiling water reactors (BWR) located in the United States and one foreign BWR that have implemented EPUs without increased operating pressure, four of which have experienced at least one or more unplanned large transients from the uprated levels. Entergy Motion at 6-8. Entergy claims that the large transients experienced at these four plants matched analytical predictions and exhibited no new phenomena. *Id.* at 9; Entergy Statement of Material Facts ¶¶ 21. Because these plants allegedly used the same analytical tools as Vermont Yankee, Entergy concludes that the operational experience in the United States and abroad supports its exception from LTT. Entergy Motion at 9.

NEC agrees that these plants are analogous to Vermont Yankee, but points out that analogous does not mean identical. NEC Material Facts Answer ¶¶ 21. Only one of these plants went through a 20% EPU, as Vermont Yankee proposes to do. *Id.* ¶ 20. Further, the only evidence about the performance at these plants is licensee event reports, which NEC argues presents only a snapshot of the true plant performance and excludes relevant but less obvious impacts. *Id.* ¶ 22. Based on these facts, NEC concludes that the operational experience at other plants does not provide a strong or conclusive basis for granting an exception from LTT. NEC Answer at 10-11.

We find that the degree of significance and relevance of the experience at these other plants presents a genuine disputed issue of material fact.

3. Vermont Yankee Operational Experience

Entergy asserts that the operating experience at Vermont Yankee supports the granting of an exception from LTT. Entergy Motion at 10-11. In support, Entergy states that Vermont Yankee performed as expected in response to all transients and that no significant anomalies were seen in the plant's response. Entergy Statement

of Material Facts ¶ 32. Further, Entergy states that the performance during transients was within the bounds of the analyzed transient responses and, because no systems have been added or changed that deal with mitigating the consequences of large transients, there is no basis for treating transient performances under EPU conditions as outside of the plant's prior experience. *Id.* ¶¶ 33-35.

NEC argues that there are genuine disputes over material issues of fact related to the relevance of Vermont Yankee's prior operating experience in predicting performance under EPU conditions. NEC points to inadequacies in the analysis of a 2004 SCRAM¹⁴ in which it claims that EPU modifications may have caused a short in the iso-phase duct resulting in a generator trip. NEC Material Facts Answer ¶ 32. NEC also notes that components have been added or changed that "have a role in a new or increased consequences accident" if they lose their integrity during a transient, making analysis of pre-EPU operational experience less meaningful. *Id.* ¶¶ 34-35.

We find that these factual issues present genuinely disputed issues of material fact regarding the Vermont Yankee operational experience and its relevance to granting an exception to LTT.

4. Component Testing To Assure Systems Will Operate During Transient Conditions

Entergy states that steady-state testing of systems and components at Vermont Yankee provides further assurance that LTT is unnecessary. Entergy Motion at 12. According to Entergy's expert, testing during normal plant operations, including testing systems, structures, and components, for transient performance confirms the previously discussed analyses. *Id.* These tests, along with the additional condensate and feedwater system transient testing Entergy has already agreed to conduct, provide adequate assurance of plant performance during large transients and make LTT unnecessary. *Id.* at 12-13.

NEC does not dispute that the systems, structures, and components at Vermont Yankee are regularly tested, but instead points out that examination of the individual pieces at the plant is not a substitute for, or proof that, each piece will work in unison during a large transient event. NEC Material Facts Answer ¶¶ 37-39. NEC also notes that the declining and adverse performance trends for individual component testing at Vermont Yankee weighs against an exception from LTT. *Id.*

¹⁴The term "SCRAM" means "the sudden shutting down of a nuclear reactor, usually by rapid insertion of control rods, either automatically or manually by the reactor operator. May also be called a reactor trip. It is actually an acronym for "safety control rod axe man," the worker assigned to insert the emergency rod on the first reactor (the Chicago Pile) in the U.S." See <http://www.nrc.gov/reading-rm/basic-ref/glossary/scram.html>.

Again, Entergy has failed to show that there is no genuine issue of material fact as to whether component testing is an adequate substitute for LTT.

In conclusion, the foregoing examples clearly demonstrate that summary disposition is inappropriate here and thus that Entergy's motion must be denied. It seems clear that the basic foundation for a motion for summary disposition — the absence of any genuine issue of material fact — is absent.¹⁵ It is apparent that NEC Contention 3 involves “competing expert opinions [that] present the ‘classic battle of the experts,’ ” *Phillips*, 400 F.3d at 399, and thus is not suitable for summary disposition.

C. Consultation: Sincere Effort To Resolve Issues

NEC's third significant argument is that the motion for summary disposition should be denied because Entergy failed to comply with the consultation requirement of 10 C.F.R. § 2.323(b). NEC Answer at 6-7. That section states:

A motion must be rejected if it does not include a certification by the attorney or representative of the moving party that the movant has made a sincere effort to contact other parties in the proceeding and resolve the issue(s) raised in the motion, and that the movant's efforts to resolve the issue(s) have been unsuccessful.

10 C.F.R. § 2.323(b). We note that Entergy's motion does contain a certification of compliance with section 2.323(b). But NEC alleges that, in fact, Entergy's counsel made only a short perfunctory call to NEC on December 2, 2005, wherein Entergy informed NEC that it was filing a motion for summary disposition on NEC Contention 3 on that same day and asking, in effect, if NEC wanted to capitulate. NEC Answer at 6-7. NEC argues that this did not constitute a “sincere effort to . . . resolve the issues raised in the motion” as required by 10 C.F.R. § 2.323(b). NEC's *pro se* representative, Mr. Raymond Shadis, submitted a formal declaration summarizing the consultation as follows:

¹⁵ Recognizing that our rules require that the opponent of a motion for summary disposition respond to each of the “material facts” listed by the movant (here Entergy listed forty-one), admitting or denying each of them, and must set forth specific facts, by affidavit or otherwise, showing that there are genuine issues of fact, *see* 10 C.F.R. § 2.710(a)-(b), we note that it is an abuse of the adjudicatory process to use a motion for summary disposition as a subterfuge for the filing of interrogatories, requests for admission, or other discovery (which are generally not permitted in Subpart L proceedings); as a mechanism for exhausting an impecunious litigant; or for any other extraneous purpose. If a party believes that stipulations or admissions would materially expedite or facilitate the proceeding, the party is encouraged to propose such a course to us directly, and the Board will act accordingly. *See* 10 C.F.R. § 2.319.

On or about December 2, 2005, Jay Silber [*sic*], counsel for [Entergy] telephoned me at my home-office. . . . He informed me that [Entergy] thought that December 2nd was the last day they could be filing a motion for summary disposition and that he thought that they would probably file one regarding [NEC's] Contention on Full Transient testing. He couched a single question on approval in the negative; something on the order of, I don't suppose you would want to go along with it? I answered . . . that it was not likely and further that my office was quite busy; and that I really didn't have time at that point to contemplate it. I told him that I guessed I would have a look at it when it was filed. Mr. Silber made *no* attempt to describe, [Entergy's] perspective on full transient testing (subject of Contention 3) and any new information regarding the issue to me. He made no further offer to engage in any discussion of this issue.¹⁶

Mr. Silber does not challenge the basics of Mr. Shadis's account of the conversation. Tr. at 755-57. Mr. Silber agrees that the call occurred on December 2, 2005, Tr. at 766-67, that he advised Mr. Shadis that Entergy planned to file a motion for summary disposition on NEC Contention 3, Tr. at 755, and that he asked Mr. Shadis if NEC wanted to withdraw the contention. Tr. at 755. Although the call was short, it appears that both participants were courteous and professional.

The question raised by NEC is whether, in the circumstances of this case, the telephone call constituted a "sincere effort to . . . resolve the issue(s)" as required by 10 C.F.R. § 2.323(b). There appears to be no legislative history or case law that helps us interpret and apply the requirement that the moving party make a "sincere effort to . . . resolve the issue(s)." This phrase was added when the Part 2 regulations were revised in 2004. 69 Fed. Reg. 2182 (Jan. 14, 2004). The Statements of Consideration preceding the final and proposed, 66 Fed. Reg. 19,610 (Apr. 16, 2001), regulations are silent as to the meaning of this phrase. The prior regulations did not contain this language, *see* 10 C.F.R. § 2.730 (2004), and we have found no NRC case law on point.¹⁷

As an initial matter, we believe that compliance with the 10 C.F.R. § 2.323(b) requirement that a movant make a "sincere effort to contact other parties in the proceeding and to resolve the issues raised in the motion" can only be determined from the objective reasonableness of the movant's efforts, as shown by all the facts and circumstances, not by his or her subjective intent. Applying the objective reasonableness test here, it does not appear that a sincere effort was made. The

¹⁶Declaration of New England Coalition Pro Se Representative Regarding ENVY's Treatment Compliance with 10 CFR § 2.323(b) with Respect to ENVY's Motion of December 2, 2005 (Dec. 22, 2005), ¶¶ 3-6.

¹⁷In certain narrow circumstances, the Federal Rules of Civil Procedure impose similar requirements. *See* Fed. R. Civ. P. 26(c) (motion for protective order) and Fed. R. Civ. P. 37(a)(2)(A) (motion for sanctions).

last-minute timing of the telephone call, on the same day that the motion had to be filed, strongly indicates that there was little or no meaningful effort, and no realistic opportunity, to resolve the issues before the motion had to be filed. This is particularly true here, where Entergy had 10 months within which to prepare this motion, not just the 10 days commonly available under 10 C.F.R. § 2.323(a).¹⁸ In addition, the substance of the call indicates no real effort at resolving the issues. Announcing, in essence, that “we are filing a motion today, do you want to surrender?” does not indicate a reasonable effort to resolve the issues in dispute.¹⁹

Even if Entergy thought that the effort might be futile (i.e., that there would be little or no chance that NEC would agree to abandon its contention), some reasonable effort is required by the regulation. Nor do we know that such a discussion would be futile. Since the absence of a genuine factual dispute is an essential prerequisite to any summary disposition, the movant could have used the required consultation to discuss whether the opponent agrees that this necessary prerequisite exists, and, if not, at least to ask the opponent to stipulate to certain basic facts, which would narrow the issues and pave the way to a more efficient briefing of the pertinent legal issues. Perhaps, rather than convincing NEC to surrender, a reasonable effort to discuss the situation with NEC would lead Entergy to recognize that the “genuine issues of material fact” indeed still exist, thus causing Entergy *not* to pursue or file a motion for summary disposition and to save its time, money, and effort for the evidentiary hearing. Both scenarios are realistic, and both would have the beneficial effect contemplated by 10 C.F.R. § 2.323(b), i.e., avoiding or minimizing the burden of unnecessary litigation.

Under these circumstances, we are inclined to view Entergy’s last minute telephone call, on the very day that the motion was due, advising NEC that Entergy was about to file a motion for summary disposition and asking if NEC wanted to agree to drop its contention, as not satisfying the requirement of 10 C.F.R. § 2.323(b) that the motion be preceded by a “sincere effort to . . . resolve the issue(s).” The regulation is, however, entirely new and untested. And we have

¹⁸ In the more common scenario, where a movant must (a) identify the “occurrence or circumstance” triggering the need for a motion, (b) research and draft the motion and brief, and (c) make a sincere effort to contact the opposing party and resolve the issues, the 10 days prescribed by 10 C.F.R. § 2.323(a) is quite short and it may be understandable if the “sincere effort” does not occur until the last few days. Here, however, the ISO was issued on February 1, 2005, and the deadline it established for motions for summary disposition turned out to be December 2, 2005 — 10 months later.

¹⁹ The last-minute and perfunctory call from Entergy is not excused by the imperfect reaction by NEC’s *pro se* representative, who, when told that the motion for summary disposition would be filed today and asked if he would “want to go along with it” answered that “it was not likely,” and that he “didn’t have time at that point to contemplate” the matter and “would have a look at it when it was filed.” In context (a call, after 10 months, on the very deadline for filing the motion), Mr. Shadis’s reaction was not surprising, and in any event does not relieve the movant of its duty to, in the first instance, make a sincere effort to resolve the issues.

already denied the motion for summary disposition on more substantive grounds. Accordingly, we find it unnecessary to rule on this procedural aspect of NEC's motion.

III. CONCLUSION

For the foregoing reasons, Entergy's motion for summary disposition of NEC Contention 3 is denied.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD²⁰

Alex S. Karlin, Chairman
ADMINISTRATIVE JUDGE

Anthony J. Baratta
ADMINISTRATIVE JUDGE

By G.P. Bollwerk for
Lester S. Rubenstein
ADMINISTRATIVE JUDGE

Rockville, Maryland
January 31, 2006

²⁰ Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Licensees Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.; (2) Intervenors Vermont Department of Public Service and New England Coalition of Brattleboro, Vermont; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

James E. Dyer, Director

In the Matter of

CAROLINA POWER AND LIGHT COMPANY (Shearon Harris Nuclear Power Station, Unit 1; H. B. Robinson Plant, Unit 2)	Docket Nos. 50-400 50-261
CONSTELLATION ENERGY GROUP (R. E. Ginna Nuclear Power Plant)	Docket No. 50-244
DUKE ENERGY CORPORATION (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2)	Docket Nos. 50-369 50-370 50-413 50-414
ENTERGY NUCLEAR OPERATIONS, INC. (James A. FitzPatrick Nuclear Power Plant; Indian Point, Units 2 and 3; Vermont Yankee Nuclear Power Station; Waterford Steam Electric Station, Unit 3; Arkansas Nuclear One, Units 1 and 2)	Docket Nos. 50-333 50-247 50-286 50-271 50-382 50-313 50-368 January 9, 2006

The Petitioners requested that the U.S. Nuclear Regulatory Commission (NRC) engage emergency enforcement actions to modify and/or suspend operating licenses for the listed plants with regard to potential violations of NRC regulations for fire protection. Specifically, the petition requested the following actions: (1)

Collect information through generic communications with nuclear industry to determine the extent of condition of the inoperable fire barriers, including the requirement that the licensees conduct a full inventory of the type of Hemyc/MT to include the amount in linear and square footage, its specific applications, and the identification of safe shutdown systems, which are currently unprotected by the noncompliance and an assessment of the safety significance of each application; (2) the communication should require, at minimum, that the above-named sites provide justification for operation in noncompliance with all applicable fire protection regulations; and (3) with the determination that any and/or all of the above-mentioned sites are operating in an unanalyzed condition and/or that assurance of public health and safety is degraded, promptly order a suspension of the license or a power reduction of the affected reactors until such time as it can be demonstrated that the licensees are operating in conformance with all other applicable fire protection regulations.

The final Director's Decision on this petition was issued on January 9, 2006. It addresses the Petitioners' requested actions as follows: With regard to requests 1 and 2, the NRC Staff has granted the Petitioners' request through the generic communication process. Specifically, the NRC Staff is planning to issue a Generic Letter (GL) to all licensees asking them to provide detailed information about the use of Hemyc/MT in their nuclear power plants, and their programmatic controls that ensure that other fire barrier types will be assessed for potential degradation and adverse effects. With respect to request 3, the NRC Staff is planning to review the responses from all affected plants in detail and will take appropriate actions to resolve the issues with the use of Hemyc/MT material commensurate with the safety significance of the protected systems. The comment period for the proposed GL expired on September 23, 2005. The GL will be issued after the NRC's internal review process is completed.

DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

I. INTRODUCTION

By letter dated May 12, 2005, Mr. Paul Gunter, on behalf of Nuclear Information and Resource Service, Citizens Awareness Network, Indian Point Safe Energy Coalition, North Carolina Waste Awareness and Reduction Network, Alliance for Affordable Energy, and Blue Ridge Environmental Defense League (the Petitioners) filed a petition pursuant to Title 10 of the *Code of Federal Regulations* (10 C.F.R.), section 2.206. The Petitioners requested that the U.S. Nuclear Regulatory Commission (NRC) engage emergency enforcement actions to modify and/or suspend operating licenses for Shearon Harris Nuclear Power

Station Unit 1, Docket No. 50-400, License No. NPF-63; H. B. Robinson Unit 2, Docket No. 50-261, License No. DPR-23; McGuire Units 1 and 2, Docket No. 50-369, 50-370, License No. NPF-9, NPF-17; Catawba Units 1 and 2, Docket Nos. 50-413 and 50-414, License Nos. NPF-35 and NPF-52; Ginna, Docket No. 50-244, License No. DPR-18; James A. FitzPatrick, Docket No. 50-333, License No. DPR-59; Indian Point Units 2 and 3, Docket Nos. 50-247 and 50-286, License Nos. DPR-26 and DPR-64; Vermont Yankee, Docket No. 50-271, License No. DPR-28; Waterford Unit 3, Docket No. 50-382, License No. NPF-38; and Arkansas Nuclear One Units 1 and 2, Docket Nos. 50-313 and 50-368, License Nos. DPR-51 and NPF-6, with regard to potential violations of NRC regulations for fire protection under 10 C.F.R. Part 50. Specifically, the petition requested emergency enforcement under 10 C.F.R. § 2.206 to include the following actions by the Commission:

1. Collect information through generic communications with nuclear industry and specifically with the named reactor sites to determine the extent of condition of the inoperable fire barriers, including the requirement that the licensees conduct a full inventory of the type of Hemyc/MT to include the amount in linear and square footage, its specific applications, and the identification of safe shutdown systems, which are currently unprotected by the noncompliance and an assessment of the safety significance of each application;
2. The communication should require, at minimum, that the above-named sites provide justification for operation in noncompliance with all applicable fire protection regulations; and
3. With the determination that any and/or all of the above-mentioned sites are operating in an unanalyzed condition and/or that assurance of public health and safety is degraded, promptly order a suspension of the license or a power reduction of the affected reactors until such time as it can be demonstrated that the licensees are operating in conformance with all other applicable fire protection regulations.

As the basis for the requests, the Petitioners cited a meeting on April 29, 2005, held by NRC with all stakeholders to discuss the performance of 1-hour (Hemyc) and 3-hour (MT) fire barriers for electrical raceways during full-scale fire testing. In that meeting the NRC Staff informed all stakeholders that the Hemyc/MT electrical raceway fire barrier system (ERFBS) failed to protect electrical cables for 1 hour/3 hours in fire tests that were performed to the American Society for Testing and Materials (ASTM) Standard E119. The Petitioners' request was also based on the following conclusions made by the Petitioners: (1) The same Hemyc/MT fire barrier wrap systems as installed in the above nuclear plants fail to assure the protection of the control room operations for achieving safe shutdown

of the reactor in the event of a significant fire; (2) NRC has not quantified the full extent of the amount of Hemyc/MT fire barrier material in terms of linear and/or square footage deployed per fire protection regulations, and NRC has not determined the safety significance of this deployment for safe shutdown systems that are not currently protected by these fire barriers; and (3) the Petitioners believe that the above-listed nuclear power stations are operating in violation of NRC fire protection requirements and in an unanalyzed condition resulting in a degradation of defense-in-depth fire protection and safe shutdown in the event of a significant fire.

By teleconference on June 1, 2005, the Petitioners provided information to the NRC's Petition Review Board as further explanation and support for their petition. The transcript of this teleconference was treated as a supplement to the petition and is available in the Agencywide Documents Access and Management System (ADAMS) for inspection under Accession No. ML051640452 at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible from the ADAMS Public Electronic Reading Room on the NRC Web site <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR reference staff by telephone at 1-800-397-4209, 301-415-4737, or by e-mail to pdr@nrc.gov.

During the teleconference, the Petitioners also requested that this petition be modified to consider this fire barrier material in context of an overall picture of the extent of condition for fire barrier protection under section III.G.2 of Appendix R to 10 C.F.R. Part 50 (i.e., not just the Hemyc/MT ERFBS). As a basis for this request, the Petitioners stated that they don't believe it is justifiable for NRC or industry to wait on a potential ruling with regard to operator manual action.

In a letter dated June 27, 2005, the NRC informed the Petitioners that their request was received and that the issues in the petition were being referred to the Office of Nuclear Reactor Regulation for appropriate action. However, the Petitioners' request for immediate action and the request to expand the scope to cover other fire barrier issues were denied by the NRC. When the test results became available, the NRC Staff examined whether there was an immediate and significant risk to safety. Because fire detection, prevention, and suppression measures are already in place, or lack of such features had been previously approved by the NRC, to minimize both the probability of occurrence and consequences of a fire that could prevent the performance of safe shutdown functions, the NRC Staff concluded that continued plant operation while corrective actions are implemented would not pose an undue risk to public health and safety.

The NRC Staff sent the proposed Director's Decision (DD) to the Petitioners for comment on October 20, 2005. The NRC Staff did not receive any comments on the proposed DD.

II. DISCUSSION

NRC's concern with the performance of fire barriers at nuclear power plants began with the failure of Thermo-Lag to pass performance tests in October 1989 at Southwest Research Institute. The tests were done for the Gulf States Utilities Company after visually observing degradation of Thermo-Lag at River Bend Station.

Because of questions about the ability of 1-hour- and 3-hour-rated Thermo-Lag fire barrier material to perform its specified function, and because of the widespread use of Thermo-Lag in the nuclear industry, the NRC issued Generic Letter (GL) 92-08, "Thermo-Lag 330-1 Fire Barriers," December 17, 1992, to inform licensees of the Thermo-Lag test results and to request that licensees implement appropriate compensatory measures and develop plans to resolve any noncompliances with 10 C.F.R. § 50.48.

In response, licensees reviewed their fire protection safe shutdown plans to determine if corrective actions were needed. Some licensees had made conservative commitments and installed Thermo-Lag in locations where it was not needed to satisfy NRC requirements; therefore, no corrective actions were required. Where fire barrier materials were required, licensees took one or a combination of the following corrective actions:

- Rerouted cables through other fire areas so that redundant safe shutdown trains were not located in the same area;
- Replaced Thermo-Lag, or the affected material, with an alternative rated fire barrier material;
- Upgraded the installed fire barriers to a rated configuration; or
- Concluded that certain Thermo-Lag barriers were no longer required.

Subsequently, deficiencies were also identified in other fire barrier materials. In 1993, for example, Kaowool installed as a 1-hour-rated fire barrier was found to be unable to pass fire endurance tests as a rated fire barrier. In response, the NRC Staff reassessed previous NRC Staff reviews of Kaowool fire barriers and informed the industry and the Commission of the potential failure of Kaowool to perform as intended and suggested additional testing of Kaowool (SECY-99-204; ADAMS Accession No. ML992810028). To resolve the issue, the industry took voluntary corrective actions.

In August 1993, the Nuclear Energy Institute (NEI) formed a Fire Barrier Review Ad Hoc Advisory Committee to address the adequacy of fire barrier materials other than Thermo-Lag. The Committee reviewed the original testing of the fire barrier, Hemyc (performed in the early 1980s in Spain), and concluded that Hemyc was differently constructed than Thermo-Lag 330-1, and therefore was not subject to the same failure modes as Thermo-Lag 330-1. In May 1994, this review was documented in the NEI report, "Documentation of the Adequacy of Fire Barrier Materials in Raceway Applications vis-a-vis Failure Characteristics Inherent to the Thermo-Lag 330-1."

However, beginning in late 1999, three plant-specific findings by the NRC Staff raised concerns about the performance of Hemyc and MT fire barriers. Hemyc and MT, manufactured by Promatec, Inc., were installed at nuclear power plants (NPPs) to protect circuits and instrumentation cables in order to meet regulatory requirements and in accordance with plant-specific commitments. In June 2001, the NRC initiated confirmatory fire tests in response to Task Interface Agreement 99-028 (ADAMS Accession No. ML003736721), after concluding that existing testing was likely insufficient to qualify Hemyc or MT as rated fire barriers. In March/April 2005, the NRC conducted confirmatory testing of both materials at the Omega Point Laboratories in San Antonio, Texas. The NRC tests were based on ASTM Standard E119 time-temperature conditions and the current NRC guidance in GL 86-10, Supplement 1, for typical Hemyc and MT arrangements used in NPPs. The test results indicated that when tested using the GL 86-10, Supplement 1, guidance, neither Hemyc nor the MT fire barrier systems would provide their rated fire barrier protection for the configurations tested.

On April 1, 2005, the NRC issued Information Notice (IN) 2005-07, "Results of Hemyc Electrical Raceway Fire Barrier System Full Scale Fire Testing." This IN describes the results of the NRC-sponsored confirmatory testing of Hemyc. However, the NRC Staff recognized that additional evaluations would be needed to determine whether regulatory compliance exists in light of the concerns identified in IN 2005-07. On April 29, 2005, the NRC Staff held a public meeting with licensees and interested members of the public to discuss the Hemyc and MT test results and the NRC Staff's intentions to take prompt additional regulatory action to ensure that appropriate measures are under way for compliance with 10 C.F.R. § 50.48 requirements at affected NPPs.

The NRC Staff recognizes the concern expressed by the Petitioners. The NRC Staff is concerned that the Hemyc and MT fire barriers may not provide the level of fire endurance intended by licensees and that licensees that use Hemyc or MT may not be complying with NRC regulations or plant-specific licensing bases. Section 50.48 of 10 C.F.R. requires that each operating NPP have a fire protection plan that satisfies General Design Criterion (GDC) 3, "Fire protection," of 10 C.F.R. Part 50, Appendix A, "General Design Criteria for Nuclear Power

Plants.” GDC 3 requires that structures, systems, and components important to safety be designed and located to minimize, in a manner consistent with other requirements, the probability and effect of fires and explosions. Fire protection features required to satisfy section 50.48 include features to limit fire damage to structures, systems, or components important to safety so that the capability to shut down the NPP safely is ensured.

The NRC has issued guidance on acceptable methods of satisfying the regulatory requirements of GDC 3 in the Branch Technical Position (BTP), Auxiliary and Power Conversion Systems Branch BTP 9.5-1, Standard Review Plan, Section 9.5-1, and GLs. GL 92-08 specifically included the NRC Staff’s expectation that licensees would review existing fire barrier configurations credited for 10 C.F.R. Part 50, Appendix R, compliance, based on earlier concerns with Thermo-Lag.

Licensees of plants licensed to operate before January 1, 1979, must comply with their fire protection requirements as specified in 10 C.F.R. Part 50, Appendix R, and licensees of plants licensed to operate after January 1, 1979, must comply with the approved fire protection program incorporated into their operating license. In light of information provided in IN 2005-07 and other guidance, the NRC Staff expects licensees to reevaluate their fire protection programs, implement appropriate compensatory measures, and develop plans to resolve any noncompliances within a reasonable time frame. All licensees should consider the impact of fire barrier degradation on the operability of affected equipment and assess the impact on plant safety.

If a nonconforming condition is identified, licensees can use at least two methods, individually or in combination, to restore compliance. One way is to make plant modifications such as replacing the Hemyc or MT fire barriers with an appropriately rated fire barrier material, upgrading the Hemyc or MT to a rated barrier, or rerouting cables or instrumentation lines through another fire area. Another way to address the issue is to perform a technical evaluation that considers defense-in-depth and safety margins and serves as the technical basis for a licensing basis change as follows:

- Plants licensed to operate before January 1, 1979, may request an exemption from 10 C.F.R. Part 50, Appendix R, in accordance with the requirements of 10 C.F.R. § 50.12, “Specific exemptions.”
- Plants licensed to operate after January 1, 1979, must meet the fire protection requirements in the operating license condition. The standard license condition allows a licensee to make changes to the approved fire protection program without prior NRC Staff approval “if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.” GL 86-10, “Implementation of Fire Protection Requirements,” provides guidance on performing and documenting these

changes. The plants that adopt a risk-informed approach should submit a license amendment in accordance with 10 C.F.R. § 50.90.

On July 25, 2005, the NRC Staff issued a GL for comment in the *Federal Register*. The comment period expired on September 23, 2005. The NRC Staff intends to issue the final GL by March 31, 2006, after NRC's review of comments is completed. The GL will request all licensees who credit Hemyc or MT for compliance to provide information regarding the extent of the installation; whether the material is degraded or nonconforming; and any compensatory actions in place to provide equivalent protection and maintain the safe shutdown function of affected areas of the plant in light of the recent findings of potential degradation of Hemyc and MT. Licensees will be requested to provide evaluations to support conclusions that they are in compliance with regulatory requirements for the Hemyc and MT applications. Licensees that cannot justify their continued reliance on Hemyc or MT are requested to provide a description of corrective actions taken or planned and a schedule for milestones including when full compliance will be achieved. In addition, licensees will be requested to identify and discuss all applications that are considered degraded but operable, including a basis for this conclusion.

It is expected that the compensatory and corrective actions shall be implemented in accordance with existing regulations commensurate with the safety significance of the degraded or nonconforming condition. The NRC Staff expects that all licensees will fully restore compliance with 10 C.F.R. § 50.48, and submit the required documentation to the NRC, by December 1, 2007.

III. CONCLUSION

The NRC Staff shares the concerns expressed by the Petitioners. The NRC Staff is addressing the Hemyc/MT material performance issues in an expeditious manner. With regard to response to Requests 1 and 2, the NRC Staff has granted the Petitioners' request through the generic communication process. Specifically, as discussed above, the NRC Staff is planning to issue a GL to all licensees asking them to provide detailed information about the use of Hemyc/MT in their NPPs. With respect to Request 3, the NRC Staff is planning to review the responses from all affected plants and will take appropriate actions to resolve the issues with the use of Hemyc/MT material commensurate with the safety significance of the protected systems.

As provided in 10 C.F.R. § 2.206(c), a copy of this DD will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the Decision will constitute the final action of the Commission

25 days after the date of the Decision unless the Commission, on its own motion, institutes a review of the Decision within that time.

FOR THE NUCLEAR REGULATORY
COMMISSION

J.E. Dyer, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 9th day of January 2006.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory P. Jaczko¹
Peter B. Lyons

In the Matter of

Docket No. PAPO-00
(Pre-Application Matters)

U.S. DEPARTMENT OF ENERGY
(High-Level Waste Repository)

February 2, 2006

RULES OF PRACTICE: SUBPART J (DOCUMENTARY MATERIAL)

The threshold question in determining if certain items must be made available on the High-Level Waste Repository Licensing Support Network is whether the particular items fall within any of the three classes of documentary material, as defined in 10 C.F.R. § 2.1001.

RULES OF PRACTICE: SUBPART J (DOCUMENTARY MATERIAL)

Drafts of the license application are not Class 1, Class 2, or Class 3 documentary material under Subpart J, so the regulations do not require making draft license applications available on the Licensing Support Network.

¹Commissioner Jaczko has recused himself from this matter and did not participate in today's decision.

**RULES OF PRACTICE: SUBPART J (DOCUMENTARY MATERIAL
— CLASS 1 AND CLASS 2)**

Both Class 1 and Class 2 are tied to a “reliance” criterion. Class 1 covers information a party intends to rely upon in support of its position. Class 2 documentary material is material that the party in possession knows does not support its position. The material that falls within Class 1 or Class 2 is the underlying *independent* documentary material used (or not used if nonsupporting) by the Department of Energy in formulating its license application.

**RULES OF PRACTICE: SUBPART J (DOCUMENTARY MATERIAL
— CLASS 3)**

Class 3 documents are not tied to any “reliance” criterion. Class 3 documentary materials are “reports and studies” prepared on behalf of potential parties to the proceeding. Class 3 documentary material must satisfy two conditions. First, Class 3 documentary materials must be “reports and studies” that are relevant to the issues listed in the Topical Guidelines contained in Regulatory Guide 3.69. Second, the reports and studies must be relevant to the license application.

**RULES OF PRACTICE: SUBPART J (DOCUMENTARY MATERIAL
— CLASS 3)**

The question whether a draft is a “circulated” or a “preliminary” draft can arise in connection with Class 3 documentary material, although the Commission did not need to reach that question here. The distinction between “preliminary” and “circulated” drafts is a significant distinction in the Commission’s Subpart J regulations.

**RULES OF PRACTICE: SUBPART J (BASIC LICENSING
DOCUMENTS)**

REGULATORY INTERPRETATION: SUBPART J

The purpose of 10 C.F.R. § 2.1003 is to define the *availability* of material, not to provide *definitions* of types of materials; definitions are contained in 10 C.F.R. § 2.1001. To be considered “documentary material,” a “basic licensing document” (10 C.F.R. § 2.1003(b)) must still meet the definition of Class 3 documentary material (10 C.F.R. § 2.1001).

REGULATORY INTERPRETATION: GENERAL RULES

The interpretation of a regulation, like the interpretation of a statute, begins “with the language and structure of the provision itself. Further, the entirety of the provision must be given effect. Although administrative history and other available guidance may be consulted for background information and the resolution of ambiguities in a regulation’s language, its interpretation may not conflict with the plain meaning of the wording used in that regulation.”

MEMORANDUM AND ORDER

This matter comes before the Commission on appeal from an order granting the State of Nevada’s motion to compel production of a draft license application of the U.S. Department of Energy. In LBP-05-27, the Pre-License Application Presiding Officer (PAPO) Board granted Nevada’s motion to compel, and ordered DOE to place the draft license application on the Licensing Support Network (LSN).² Both DOE³ and the NRC Staff⁴ appealed the PAPO Board’s ruling. The NRC Staff’s filing also included a motion for a stay pending a final Commission decision on these appeals. The Commission denied the motion for a stay.⁵ Nevada filed briefs in opposition to both appeals.⁶ The Nuclear Energy Institute (NEI)

²62 NRC 478 (2005). “*Licensing Support Network* means the combined system that makes documentary material available electronically to parties, potential parties, and interested governmental participants to a proceeding for a construction authorization for a high-level radioactive waste repository at a geologic repository operations area” 10 C.F.R. § 2.1001. The LSN is housed at the Commission within a separate organization that is independent of the NRC Staff. Responsibility for maintaining the LSN is assigned to the LSN Administrator. “*LSN Administrator* means the person within the U.S. Nuclear Regulatory Commission responsible for coordinating access to and the integrity of data available on the Licensing Support Network. The LSN Administrator shall not be in any organizational unit that either represents the U.S. Nuclear Regulatory Commission staff as a party to the high-level waste repository licensing proceeding or is a part of the management chain reporting to the Director, Office of Nuclear Material Safety and Safeguards. For the purposes of this subpart, the organizational unit within the NRC selected to be the LSN Administrator shall not be considered to be a party to the proceeding.” 10 C.F.R. § 2.1001.

³DOE Notice of Appeal from the PAPO Board’s September 22, 2005 Order (Oct. 3, 2005); DOE Brief on Appeal from the PAPO Board’s September 22, 2005 Order (Oct. 3, 2005) (“DOE Brief”).

⁴NRC Staff Notice of Appeal (Oct. 3, 2005); NRC Staff Appeal of LBP-05-27 and Application for Stay (Oct. 3, 2005).

⁵CLI-05-27, 62 NRC 715 (2005).

⁶State of Nevada’s Brief in Response to Department of Energy’s Appeal from the Board’s September 22, 2005 Order (October 13, 2005); State of Nevada’s Response to NRC Staff’s Appeal of the PAPO’s September 22 Order and Its Request for a Stay (Oct. 13, 2005).

filed a brief in support of DOE's appeal (and of certain legal arguments in the NRC Staff's appeal).⁷

The Commission finds that DOE's draft license application is not "documentary material" under applicable regulations, and consequently there is no requirement to place it on the LSN. The Commission reverses the PAPO Board's ruling on this basis.

I. BACKGROUND

A. Regulatory Scheme

This appeal requires an interpretation of NRC regulations establishing a process under which DOE may apply for a license to construct a high-level radioactive waste repository. The purpose of the regulations is to enable the Commission to meet its statutory obligation to complete its examination of the application within 3 years of its filing.⁸ To this end, the regulations establish a "pre-license application" process for efficiently accomplishing the extensive discovery required in a proceeding of this type. The process is intended to establish a complete online record that is easily accessible to the Licensing Board and to all parties to the proceeding.

Subpart J⁹ of the Commission's procedural regulations governs the pre-license application discovery process, including the creation of the LSN, an electronically accessible database. Under Subpart J, the participants in the pre-license application process must make "documentary material" in their possession available on the LSN. The term "documentary material," as defined in 10 C.F.R. § 2.1001, includes three "classes" of information:

- (1) Any information upon which a party, potential party, or interested governmental participant intends to rely and/or to cite in support of its position in the proceeding . . . ;
- (2) Any information that is known to, and in the possession of, or developed by the party that is relevant to, but does not support, that information or that party's position; and
- (3) All reports and studies, prepared by or on behalf of the potential party, interested governmental participant, or party, including all related "circulated drafts," relevant to both the license application and the issues set forth in the

⁷ NEI Brief in Support of the Appeal of the Department of Energy from the PAPO Board's September 22, 2005 Memorandum and Order (Oct. 13, 2005) ("NEI Brief"). The Commission grants NEI's motion to file its brief.

⁸ Nuclear Waste Policy Act (NWPA) of 1982, § 114(d), 42 U.S.C. § 10134(d) (2000). The statute allows the Commission to extend the deadline by an additional year. *Id.*

⁹ 10 C.F.R. § 2.1000 *et seq.*

Topical Guidelines in Regulatory Guide 3.69, regardless of whether they will be relied upon and/or cited by a party. The scope of documentary material shall be guided by the topical guidelines in the applicable NRC Regulatory Guide.¹⁰

As indicated in the regulation, Class 3 information includes “circulated drafts” of reports and studies. A “circulated draft” is “a nonfinal document circulated for supervisory concurrence or signature in which the original author or others in the concurrence process have non-concurred.”¹¹ To be included on the LSN, a Class 3 “report” or “study,” in draft or otherwise, must be relevant to both the license application and to the “Topical Guidelines” contained in Regulatory Guide 3.69 (“Reg. Guide 3.69”).¹²

Participants must make their documentary materials available in accordance with the schedule and requirements set out in 10 C.F.R. § 2.1003. In particular, 10 C.F.R. § 2.1003(a) requires DOE to make its documentary material available at least 6 months prior to the date on which DOE files its license application. Pursuant to 10 C.F.R. § 2.1009(b), each participant, starting with DOE, must certify to the completeness of the documentary material it has placed on the LSN.¹³ Pursuant to the same section, DOE also must update its certification at the time it submits its license application.

The LSN will continue to be used for document storage and access after the pre-license application phase closes and the actual proceeding commences. To this end, 10 C.F.R. § 2.1003(b) spells out the responsibility for placing certain items, including the license application, on the LSN:

Basic licensing documents generated by DOE, such as the Site Characterization Plan, the Environmental Impact Statement, and the license application, or by NRC, such as the Site Characterization Analysis, and the Safety Evaluation Report, shall be made available in electronic form by the respective agency that generated the document.¹⁴

¹⁰ 10 C.F.R. § 2.1001.

¹¹ CLI-05-27, 62 NRC at 717, citing 10 C.F.R. § 2.1001.

¹² “*Topical Guidelines* means the set of topics set forth in Regulatory Guide 3.69, Topical Guidelines for the Licensing Support System, which are intended to serve as guidance on the scope of ‘documentary material.’” 10 C.F.R. § 2.1001.

¹³ DOE certified its LSN collection on June 30, 2004. That certification was challenged and subsequently struck. See LBP-04-20, 60 NRC at 300. The NRC Staff certified its collection on July 30, 2004. The NRC Staff’s certification was not challenged.

¹⁴ 10 C.F.R. § 2.1003(b).

B. PAPO Board Decision

Nevada asked DOE to place a draft of its license application on the LSN. Nevada argued that DOE is obligated to make drafts of the license application available since these drafts are “circulated drafts” of “documentary material.” DOE refused, asserting that license applications are basic licensing documents under 10 C.F.R. § 2.1003(b), not documentary material required to be produced under 10 C.F.R. § 2.1003(a), that a draft license application is a “preliminary draft” excluded from 10 C.F.R. § 2.1003(a) disclosure, and that drafts are protected from disclosure by the litigation work product privilege and the deliberative process privilege.¹⁵ In response, Nevada filed with the PAPO Board a motion to compel production of DOE’s July 2004 draft license application. DOE, the NRC Staff, and NEI filed briefs in opposition to Nevada’s motion to compel.

After hearing oral argument and receiving DOE’s responses to certain informational requests,¹⁶ the PAPO Board concluded that the draft license application¹⁷ was “documentary material” for purposes of 10 C.F.R. § 2.1001, that the draft license application was a “circulated draft” that must be placed on the LSN, and that the draft license application was not protected by either the litigation work product privilege or the deliberative process privilege.¹⁸ In concluding that the draft license application was documentary material under the Commission’s regulations, the PAPO Board reasoned that the draft license application fell within both Class 2 and Class 3 of the 10 C.F.R. § 2.1001 definition of documentary material. As a consequence of its conclusions, the PAPO Board directed DOE to make the draft license application available on the LSN.

The PAPO Board rejected DOE’s argument (also made before us) that the license application is not “documentary material” under 10 C.F.R. § 2.1001, but simply a “basic licensing document” under 10 C.F.R. § 2.1003(b). The PAPO Board reasoned that the “basic licensing documents” category is not separate from documentary material, but a subset of it. The PAPO Board relied on the following language from the Commission’s Statements of Consideration on the Subpart J regulations: “[r]eports’ and ‘studies’ will also include the basic documents relevant to licensing such as the DOE EIS [Environmental Impact Statement], the NRC Yucca Mountain Review Plan, as well as other reports or

¹⁵ May 23, 2005 Refusal Letter, attached to Nevada’s Initial Brief in Support of Its Motion To Compel Production of DOE’s Draft Yucca License Application, or in the Alternative, for a Declaratory Order (“Nevada Brief on Motion To Compel”) before the PAPO Board, as Exhibit 2.

¹⁶ The PAPO Board sets out the details of this procedural history in LBP-05-27, 62 NRC at 483-86.

¹⁷ The PAPO Board included DOE’s September 2004 revisions to the July 2004 draft in its usage of “draft license application” as a collective term in its ruling. *Id.* at 504, 520-21. We do the same in today’s order.

¹⁸ *Id.* at 483, 520-21.

studies prepared by an LSN participant or its contractor.’’¹⁹ The PAPO Board also relied on Appendix A of Reg. Guide 3.69, which provides examples of documents — such as the EIS — that belong on the LSN. According to the PAPO Board, these examples show that “basic licensing documents” and “documentary materials” are not mutually exclusive categories.²⁰

The PAPO Board then turned to the various classes of documentary material. The PAPO Board first explained that Class 1 documentary materials are “reliance” documentary material.²¹ The PAPO Board found that a draft license application would be Class 1 documentary material only if the producing party, here DOE, intended to rely upon or to cite to the draft to support its position. The PAPO Board found irrelevant Nevada’s assertion that *Nevada* intended to rely on differences between the draft and the final versions of the license application, holding that it was the producing party’s intent (here, DOE’s), not a nonproducing party’s intent, that counts. Nevada also argued that DOE would “rely” on the draft license application because drafts are used as a basis for preparing final versions and because there will be some continuity between drafts. The PAPO Board found that this “reliance” was not the type contemplated by the regulations, and therefore the draft license application was not Class 1 documentary material.

With respect to Class 2, the PAPO Board used “basic logic,” and Nevada’s stated intention of using the draft to oppose DOE’s position, to conclude that likely differences between the draft and the final license application will make the draft version “nonsupporting” from the perspective of the producing party (DOE).²² Therefore, according to the PAPO Board, the draft belongs on the LSN as Class 2 documentary material. The PAPO Board rejected DOE’s argument that Nevada failed to show evidence of differences between the draft and final version of the license application. The PAPO Board reasoned that only DOE was in a position to provide such evidence, so Nevada could not be faulted.

The PAPO Board also concluded that the draft license application fell within the Class 3 category of documentary material as a relevant report or study.²³ The PAPO Board noted that the Yucca Mountain Review Plan provides for detailed NRC Staff evaluation of the Safety Analysis Report, which the PAPO Board characterized as “[t]he heart of any license application.”²⁴ From this, the PAPO Board reasoned that the Safety Analysis Report is an exceptionally

¹⁹ *Id.* at 497, citing Licensing Proceeding for a High-Level Radioactive Waste Geologic Repository; Licensing Support Network, Submissions to the Electronic Docket, 69 Fed. Reg. 32,836, 32,843 (June 14, 2004).

²⁰ LBP-05-27, 62 NRC at 496-97.

²¹ *Id.* at 498.

²² *Id.* at 500.

²³ *Id.* at 501-02.

²⁴ *Id.* at 501.

important part of the license application, and that its importance makes the Safety Analysis Report Class 3 documentary material. As an additional rationale for its finding, the PAPO Board again pointed to language (quoted above) in the NRC's Statements of Consideration indicating that "reports and studies" includes "the basic documents relevant to licensing."²⁵

The PAPO Board rejected DOE's argument that substituting "license application" for "reports and studies" in the Class 3 definition yields a nonsensical result, asserting that DOE made the wrong substitution. To make a valid substitution, the PAPO Board said, either "draft license application" or "Safety Analysis Report" should be substituted for "reports and studies."²⁶ The PAPO Board found that either of these substitutions achieved a sensible result.

The PAPO Board next offered an elaborate analysis concluding that, for purposes of Class 3, the draft license application at issue here was a "circulated draft," as opposed to a "preliminary draft" that does not need to be placed on the LSN.²⁷ Finally, the PAPO Board held that the deliberative process privilege is waived under the regulations for circulated drafts, and that the litigation work product privilege does not apply because the license application is prepared principally for regulatory purposes, not litigation, even though it is also subject to an adjudicatory process.²⁸

II. ANALYSIS

A. Documentary Material

As the PAPO Board correctly understood, the threshold question in determining if certain items must be made available on the LSN is whether the particular items are "documentary material." For a draft license application to qualify as documentary material, it must either fall within Class 1 or Class 2, or it must be a "circulated draft" of an item that falls within Class 3 ("reports and studies"). We agree with the PAPO Board that draft license applications do not fall within Class 1. However, we disagree with the PAPO Board's conclusion that draft license applications fit the Class 2 and Class 3 categories. We see nothing in the text or history of Subpart J suggesting an expectation that *draft* license applications would be made available on the LSN.

²⁵ *Id.* at 501, citing 69 Fed. Reg. at 32,843.

²⁶ LBP-05-27, 62 NRC at 502.

²⁷ *Id.* at 503-17.

²⁸ *Id.* at 517-20.

1. Class 1 and Class 2 Materials

Both Class 1 and Class 2 are tied to a “reliance” criterion.²⁹ Class 1 covers information a party intends to rely upon in support of its position. In response to the appeals here, Nevada reasserts the argument, made before the PAPO Board, that draft license applications are Class 1 reliance materials. Nevada reasons that the information contained in the draft will be “relied” on by DOE during the proceeding since the information contained in the final and draft license applications will overlap. This argument is no more persuasive here than it was before the PAPO Board. Even though language in a draft license application may be carried over into the final license application, should DOE seek to introduce that material in evidence, DOE will “rely” on the *final* document, not on earlier versions, to set out its position on the issues.

Class 2 documentary material is material that the party in possession knows does not support its position. The purpose of disclosing Class 2 material is to force the party in possession of the adverse information to place it on the LSN, where it can be viewed by opposing parties. DOE observes that the record before the PAPO Board contained no evidence that any information in the draft version will fail to support the license application that will eventually be submitted to the NRC. DOE notes that it will be impossible to determine if there are any differences between versions until the license application is finalized. We agree. At this juncture, and until the final license application is filed, it is pure conjecture to suppose that there will be substantive differences between drafts of a kind that could undermine DOE’s position in the final license application. It is equally likely (and equally speculative) that the final document will differ from earlier drafts only because existing positions will have been strengthened.

In any case, any radical shift in position between the draft and final versions will be based upon information that DOE has in its possession *independent* of the text of any version. This *independent* information is documentary material and belongs on the LSN. Both the old information initially relied upon and the new information supporting the revised position *will* be available on the LSN. Thus, the information needed by participants intending to challenge the license application will be readily available during the 6-month post-certification period, during the period for NRC Staff review of the DOE application to determine whether to docket the application, and during the 30-day contention preparation period that follows docketing of the license application.

²⁹ “The first two classes of documentary material are tied to a ‘reliance’ criterion. Reliance is fundamentally related to a position that a party in the HLW repository proceeding will take in regard to compliance with the Commission regulations on the issuance of a construction authorization for the repository.” 69 Fed. Reg. at 32,843.

DOE also points out that the notion that differences between drafts and final versions of documents automatically make drafts nonsupporting documents is inconsistent with Subpart J's explicit exclusion of "preliminary drafts" from the LSN,³⁰ and is contrary to the rulemaking history.³¹ In fact, as DOE argues, the Commission rejected requests during the rulemaking process to broadly include material "likely to lead to the discovery of relevant material" in the definition of documentary material.³² We agree with DOE that the PAPO Board ruling improperly injects this rejected concept into the definition of documentary material.

Further, since both Class 1 and Class 2 materials are subject to a "reliance" criterion, it is not reasonable for any participant to be expected to anticipate all documents that will qualify as either Class 1 or Class 2 documentary material prior to the filing of contentions. In fact, the Commission's stated expectation is that Class 1 and Class 2 documentary material will not be completely identified until *after* contentions are accepted.³³ Thus, it is premature to expect any participant to file a complete set of Class 1 or Class 2 documentary material in the pre-application phase, and the sense of urgency Nevada conveys through its efforts to compel production of the draft license application is misplaced.

In short, Subpart J does not treat drafts of the license application as either Class 1 or Class 2 documentary material. The material that falls within Class 1 or Class 2 is the underlying *independent* documentary material used (or not used if nonsupporting) by DOE in formulating its license application. As NEI argues, the pre-license application discovery process is not intended to yield advance copies of the license application.³⁴

2. *Class 3 Reports and Studies*

The license application and draft versions of the license application also are not Class 3 documentary materials. Class 3 documentary materials are "reports and studies" prepared on behalf of potential parties to the proceeding. Unlike

³⁰ See 10 C.F.R. § 2.1001 (definition of "preliminary draft").

³¹ DOE Brief at 13, citing Procedures Applicable to Proceedings for the Issuance of Licenses for the Receipt of High-Level Radioactive Waste at a Geologic Repository, 63 Fed. Reg. 71,729, 71,730 (Dec. 30, 1998).

³² *Id.*

³³ "[W]hile it is not possible to say there are no special circumstances that would necessitate a ruling by the PAPO on the availability of a particular document in the pre-license application stage based on its Class 1 or Class 2 status, disputes over Class 1 and Class 2 documentary material generally would be of a type that would be more appropriately raised before the Presiding Officer designated during the time following the admission of contentions when the NRC staff is working to complete the Safety Evaluation Report in its entirety." 69 Fed. Reg. at 32,843-44.

³⁴ See NEI Brief at 5.

Class 1 and Class 2 materials, Class 3 documentary materials are not tied to any “reliance” criterion. Class 3 documentary material is also the class where the question whether a draft is a “circulated” or a “preliminary” draft can arise.

The Commission agrees with the PAPO Board that 10 C.F.R. § 2.1003(b) assigns responsibility — for example, to DOE or to the NRC Staff — for the placement of certain items on the LSN. But this is not the same as classifying all such items as “documentary material.” It also does not mean that an item that is a “basic licensing document” can never simultaneously be documentary material. The purpose of 10 C.F.R. § 2.1003 is to define the availability of material, not to provide *definitions* of types of materials; definitions are contained in 10 C.F.R. § 2.1001.

DOE continues to argue that a license application is a “basic licensing document” that must be placed on the LSN pursuant to 10 C.F.R. § 2.1003(b) rather than “documentary material” that must be produced in accordance with 10 C.F.R. § 2.1003(a). To the extent that DOE argues that the license application is not documentary material, DOE is correct. “Basic licensing documents” are not automatically considered “documentary material” (although some may qualify as such if they meet the definition of any of the three classes of documentary material). Had we considered “basic licensing documents” to equate to “documentary material,” we would have included a fourth class of documentary materials in the 10 C.F.R. § 2.1001 definition.

It is true, as the PAPO Board noted, that in the Subpart J rulemaking, the Commission commented that “‘reports’ and ‘studies’ will also include the basic documents relevant to licensing such as the DOE EIS and the NRC Yucca Mountain Review Plan, as well as other reports or studies prepared by an LSN participant or its contractor.”³⁵ But even though the Commission has identified the EIS and the Yucca Mountain Review Plan as reports or studies, and even though the EIS is listed in 10 C.F.R. § 2.1003(b), it does not follow that every single item listed in that section (or otherwise considered a basic licensing document) will qualify as a report or study within Class 3. Documents referred to in 10 C.F.R. § 2.1003(b) must still meet the criteria for Class 3 documentary material before they properly can be so categorized.

Under the 10 C.F.R. § 2.1001 definition, Class 3 documentary material must satisfy two conditions deriving from two separate items: the Topical Guidelines in Reg. Guide 3.69 and the license application. First, Class 3 documentary materials must be “reports and studies” that are relevant to the issues listed in the Topical Guidelines. Second, the reports and studies must be relevant to the license application.

³⁵ 69 Fed. Reg. at 32,843.

While the PAPO Board is correct in its understanding that the relevant issues listed in the Topical Guidelines must be addressed in the license application, the PAPO Board errs in reasoning that this requirement necessitates placing the draft license application on the LSN. The only drafts of any document that must be placed on the LSN are circulated drafts of reports and studies. In other words, the underlying document, for which a draft is sought, must be a report or a study under the Class 3 definition. The PAPO Board's reasoning effectively transforms the license application into a report or a study. We do not think that a license application may fairly be characterized as a "report" or a "study."

The interpretation of a regulation, like the interpretation of a statute, begins

with the language and structure of the provision itself. Further, the entirety of the provision must be given effect. Although administrative history and other available guidance may be consulted for background information and the resolution of ambiguities in a regulation's language, its interpretation may not conflict with the plain meaning of the wording used in that regulation.³⁶

As commonly understood, "reports and studies" are documents that collect and analyze information or data, reach conclusions regarding that information or data, and present it in an accessible format; reports and studies are not, in common parlance, "applications."³⁷ The drafters of a license application use reports and studies as a foundation for preparing the license application. Thus, the license application is not a report or a study within the plain meaning of those terms; it is a document that is built upon information in reports and studies on topics, listed in the Topical Guidelines, that are relevant to a proposed high-level waste repository.³⁸ This "plain meaning" interpretation also is consistent with the

³⁶ *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-900, 28 NRC 275, 288 (1988) [citations omitted], *review denied*, CLI-88-11, 28 NRC 603 (1988). See also *Connecticut Yankee Atomic Power Co.* (Haddam Neck Plant), LBP-01-25, 54 NRC 177, 184 (2001).

³⁷ A sample definition of a "report" is "a usu[ally] formal and sometimes official statement giving the conclusions and recommendations of a person or group authorized or delegated to consider a proposal [A] usu[ally] formal account of the results of an investigation given by a person or group authorized or delegated to make the investigation." *Webster's Third New International Dictionary of the English Language* 1925 (1993). A "study" is "a careful examination or analysis of a phenomenon, development, or question usu[ally] within a limited area of investigation [A] paper or monograph in which such a study is published." *Id.* at 2268. In contrast, an "application" is "the act of applying," where "apply" means "to make an appeal or a request esp[ecially] formally and often in writing and usu[ally] for something of benefit to oneself." *Id.* at 105.

³⁸ In a footnote, the PAPO Board asserts that "[n]othing in the definition of documentary material prevents a document that *compiles* other reports and studies into a single document from also being a report or study." 62 NRC at 502 n.104 [emphasis added]. The license application (and the portion of the license application that is referred to as the Safety Analysis Report) goes beyond "compiling"

(Continued)

history of the regulations in Subpart J. As NEI rightly asserts, the Commission has repeatedly described “documentary material” as material that supports or underlies the license application.³⁹

We also observe that our regulation links the definition of Class 3 documentary material to the Topical Guidelines in Reg. Guide 3.69, not to Appendix A of Reg. Guide 3.69. Consequently, the PAPO Board’s reliance on Appendix A as justification for requiring draft license applications to be submitted to the LSN is misplaced. The list of examples of LSN documents provided in Appendix A is a useful aid for participants, but does not supplement or alter the definition of Class 3 documentary material and does not control the content either of the license application or of the LSN.

As noted earlier, the PAPO Board stated that DOE made the wrong substitution when DOE attempted to argue that “license applications” could not be “reports and studies.” On appeal, DOE counters that the alternative substitutions proposed by the PAPO Board in its order do not work. The Commission agrees. Substituting either “draft license application” or “Safety Analysis Report” for “reports and studies,” as the PAPO Board proposed, renders portions of the definition of Class 3 documentary material meaningless or superfluous.

Using the PAPO Board’s first substitution, “All reports and studies . . . including all related ‘circulated drafts’” becomes “All *draft license applications* . . . including all related ‘circulated drafts.’” Logically, “circulated drafts” is a subset of “all draft license applications.” If the Commission had intended to require all drafts of Class 3 material to be available on the LSN, there would

reports and studies into a single document; drafters of the license application do not simply stack the reports and studies prepared to provide an informational foundation for the license application one after another behind a table of contents. In the same footnote, the PAPO Board states that DOE “has apparently abandoned” the argument that the draft license application is not a report or study because the license application cites and relies on reports and studies. *Id.* The PAPO Board reverses the emphasis of DOE’s argument. DOE did observe that the license application cites and relies on documentary material when it initially denied Nevada’s request for the draft license application (prior to Nevada’s motion to compel). *See* May 23, 2005 Refusal Letter, attached to Nevada’s Brief on Motion To Compel before the PAPO Board, as Exhibit 2. But the thrust of DOE’s argument was that the license application is not *documentary material*. DOE has not “abandoned” this argument, and, in our view, the concept that reports and studies provide a foundation for the license application is implicit in the argument that the license application is not documentary material.

³⁹NEI Brief at 3, citing Proposed Rule, Procedures Applicable to Proceedings for the Issuance of Licenses for the Receipt of High-Level Radioactive Waste at a Geologic Repository, 62 Fed. Reg. 60,789, 60,789 (Nov. 13, 1997), and referencing: Notice of Proposed Rulemaking, Rule on the Submission and Management of Records and Documents Related to the Licensing of a Geologic Repository for the Disposal of High-Level Radioactive Waste, 53 Fed. Reg. 44,411, 44,412 (Nov. 3, 1988); Final Rule: “Licensing Proceedings for the Receipt of High-Level Radioactive Waste at a Geologic Repository: Licensing Support Network, Design Standards for Participating Websites,” 66 Fed. Reg. 29,453, 29,459 (May 31, 2001); and 69 Fed. Reg. at 32,841.

be no “circulated draft” subset and “circulated draft” certainly would not have merited a separate definition in 10 C.F.R. § 2.1001. A separate definition of “preliminary drafts” (another subset of “all drafts”) also would be unnecessary. This PAPO Board substitution thus makes significant portions of 10 C.F.R. § 2.1001 superfluous. Additionally, the Commission has consistently referred to the Topical Guidelines and the license application in terms that stress the distinct nature of these two items: “To fall within the definition of ‘documentary material’, reports or studies must have a nexus to both the license application . . . and the Topical Guidelines”⁴⁰ It is nonsensical to speak of the “license application” or of a “draft license application” as required to have a “nexus” to the “license application.”

Using the PAPO Board’s second substitution yields an equally unsatisfactory requirement that “all Safety Analysis Reports . . . relevant to . . . the license application” must be included on the LSN. This substitution makes the phrase “relevant to . . . the license application” meaningless. If we examine the applicable regulation, the status of the Safety Analysis Report as an integral part of the license application is clear. Section 63.21(a) of 10 C.F.R. specifies the required content of a license application for a high-level waste repository, providing as follows:

An application *consists of* general information and a Safety Analysis Report. An environmental impact statement must be prepared in accordance with the Nuclear Waste Policy Act of 1982, as amended, and *must accompany* the application. Any Restricted Data or National Security Information must be separated from unclassified information. The application must be as complete as possible in the light of information that is reasonably available at the time of docketing. [Emphasis added.]⁴¹

Thus, the applicable regulation specifies that the license application *consists of* two parts, one of which *is* the Safety Analysis Report. In contrast, the regulation specifies that the Environmental Impact Statement, a separate document, *must accompany* the license application. Since the Safety Analysis Report is an integral part of the license application, it is by definition “relevant” to the license application, so imposing an additional requirement (as in the definition of Class 3 documentary materials) that the Safety Analysis Report be “relevant to the license application” is surplus. If the Commission had intended to require separate LSN submission of parts of the license application, it would have stated that intention unambiguously, with no surplus language.

⁴⁰ 69 Fed. Reg. at 32,843.

⁴¹ 10 C.F.R. § 63.21(a).

Nevada argues that the dispute over whether draft license applications must be placed on the LSN is like an earlier dispute over DOE archival e-mails.⁴² Nevada argues that cost and inconvenience to DOE are immaterial, and that the two disputes should be handled in the same way: the draft license application, like archival e-mails, should be placed on the LSN. However, the facts of the current appeals differ markedly from the facts addressed in the earlier dispute. In the earlier decision, DOE was ordered to determine, based upon relevance, *which* archival e-mails (and other documents) were documentary material and to produce those that were relevant on the LSN.⁴³ There was no question that at least some of the archival e-mails (and other documents) would fall within the definition of documentary material, thus satisfying the threshold “documentary material” requirement. Here, the materials sought are not documentary material to begin with, so, unlike archival e-mails, no relevance analysis is needed.

For all of these reasons, the Commission finds that the license application is not a Class 3 report or study, although the final application ultimately must be made available on the LSN as a basic licensing document.⁴⁴ Since the license application is not a report or a study, a *draft* license application, whether or not circulated internally at DOE, cannot be a circulated draft of a report or a study. As a result, draft license applications do not belong on the LSN.

B. Other Issues

Because we have concluded that draft license applications do not constitute “documentary material,” we need not reach the other issues appealed by NRC Staff and DOE. The PAPO Board devoted much attention to the concept of “circulated drafts,” and so do the parties’ appellate briefs. We do not address the subject at length in today’s decision, but we do want to stress that our regulations expressly *distinguish* between “preliminary” and “circulated” drafts. This is a significant distinction. The NRC Staff expressed concern that participants in the proceeding would be forced to undertake the difficult task of measuring every draft produced against various “objective” factors outlined by the PAPO Board. The NRC Staff argued that this would lead participants to take the easier route of simply putting all drafts of all documents on the LSN, potentially “flooding” the system.

A basic consideration regarding the LSN is that each party will place its final documents on the LSN. The Statements of Consideration for both the

⁴² See *U.S. Department of Energy* (High-Level Waste Repository), LBP-04-20, 60 NRC 300 (2004).

⁴³ *Id.* at 324. DOE also was ordered to complete its privilege review of certain documents (*id.* at 321), and to produce relevant late-gathered documents (*id.* at 326) and other documents that had not been supplied for various reasons (*id.* at 327).

⁴⁴ 10 C.F.R. § 2.1003(b).

proposed and final rules concerning circulated drafts specifically note that “[t]he submission requirements of § 2.1003 generally apply only to final documents, *e.g.*, a document bearing the signature of an employee of an [LSN] participant or its contractors.”⁴⁵ The rule does, however, contain an exception: circulated drafts are required to be submitted to the LSN. The Statements of Consideration state that

[t]he intent of this exception to the general rule [with respect to] final documents is to capture those documents to which there has been an unresolved objection by the author or other person in the internal management review process (the concurrence process) of an [LSN] participant or its contractor. In effect, the Commission and the other government agencies who are [LSN] participants are waiving their deliberative process privilege for these circulated drafts.”⁴⁶

It is within this framework of an exception to the general rule on the submission of final documents that the definition of circulated draft is properly examined. The regulations define a circulated draft as

a nonfinal document circulated for supervisory concurrence or signature in which the original author or others in the concurrence process have non-concurred. A “circulated draft” meeting the above criterion includes a draft of a document that eventually becomes a final document, and a draft of a document that does not become a final document due to either a decision not to finalize the document or the passage of a substantial period of time in which no action has been taken on the document.”⁴⁷

A draft document must be placed on the LSN when it has received a nonconcurrency satisfying the regulatory definition of circulated draft. The heart of the definition of circulated draft is the meaning of nonconcurrency. The Statements of Consideration make clear that in order to be considered a nonconcurrency, “[t]he objection or non-concurrence must be unresolved. Any draft documents to which such a formal, unresolved objection exists must be submitted for entry into the [LSN].”⁴⁸ The Statements of Consideration further reflect that “the draft of that document must be entered into the [LSN] after the decision-making process

⁴⁵ Submission and Management of Records and Documents Related to the Licensing of a Geologic Repository for the Disposal of High-Level Radioactive Waste, Final Rulemaking, 54 Fed. Reg. 14,925, 14,934 (Apr. 14, 1989); *see also* Submission and Management of Records and Documents Related to the Licensing of a Geologic Repository for the Disposal of High-Level Radioactive Waste, Notice of Proposed Rulemaking, 53 Fed. Reg. 44,411, 44,415 (Nov. 3, 1988).

⁴⁶ 53 Fed. Reg. at 44,415.

⁴⁷ 10 C.F.R. § 2.1001.

⁴⁸ 54 Fed. Reg. at 14,934; 53 Fed. Reg. at 44,415.

on the document has been completed, *i.e.*, the requirements of § 2.1003 do not require a[n] [LSN] participant to submit a circulated draft to the [LSN] while the internal decision-making process is ongoing.”⁴⁹ From the foregoing, we glean three elements of a “nonconcurrency”:

1. A non-concurrence must be part of a formalized process;
2. A non-concurrence must be unresolved, with the original author or others in the concurrence process in disagreement with the final product; and
3. The decision-making on the document must be completed.

The PAPO Board interpreted nonconcurrency “in a practical way to mean a comment or objection indicating significant, substantive nonagreement with the draft in question, *i.e.*, a nonagreement requiring a substantive change in the document before the individual in question agrees with or will approve it.”⁵⁰ We disagree. Preservation of the distinction between preliminary and circulated drafts mandates that the concurrence process to which a draft of documentary material is subjected in order to convert it to a “circulated” draft must necessarily have aspects of formality and finality. To qualify as a “circulated draft,” a document must undergo a degree of formal review different from the typical comments and revisions (however substantive or serious) made during an ongoing drafting process that may involve multiple authors from a variety of disciplines.

In sum, in order for documentary material to be considered to be a “circulated draft,” it must have received a nonconcurrency in a formalized process, and the decisionmaking on the document must be completed.

III. CONCLUSION

We hold that DOE’s draft license application is not Class 1, Class 2, or Class 3 “documentary material” under our regulations. Since none of the classes of documentary material apply, there is no requirement to make draft license applications available on the LSN. We therefore *reverse* the PAPO Board’s decision (LBP-05-27) requiring DOE to place the draft license application on the LSN.

⁴⁹ 54 Fed. Reg. at 14,934.

⁵⁰ LBP-05-27, 62 NRC at 510.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 2d day of February 2006.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jackzo
Peter B. Lyons

In the Matter of

Docket No. 50-263-LR

**NUCLEAR MANAGEMENT
COMPANY, LLC
(Monticello Nuclear Generating
Plant)**

February 2, 2006

RULES OF PRACTICE: APPELLATE REVIEW (BRIEFS)

By our regulations, a notice of appeal must be accompanied by a brief. *See* 10 C.F.R. § 2.311(a). Failure to submit a brief, including legal argument and citations to the record, is reason enough to reject an appeal.

RULES OF PRACTICE: STANDING

The NRC follows judicial concepts of standing in its own proceedings. *See, e.g., U.S. Department of Energy* (Plutonium Export License), CLI-04-17, 59 NRC 357, 363 (2004); *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-92-2, 35 NRC 47, 56 (1992).

RULES OF PRACTICE: STANDING (REPRESENTATIONAL)

The Board properly found no standing where Petitioner failed to demonstrate that it, or any of its members, would suffer any concrete or particularized harm from the proposed license renewal.

RULES OF PRACTICE: ATTORNEY CONDUCT

It is our customary practice to disregard briefs that contain personal attacks on the Board. *See, e.g., Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 2), ALAB-474, 7 NRC 746, 748-49 (1978); *Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-121, 6 AEC 319, 320 (1973). Insulting language does nothing to advance a petitioner's arguments or the Commission's review, and will not be tolerated.

MEMORANDUM AND ORDER

Before the Commission is an "appeal" by Petitioner North American Water Office (NAWO), of the Atomic Safety and Licensing Board's ("Board") ruling on standing and contention admissibility.¹ That ruling denied NAWO's petition to intervene in the application of the Nuclear Management Company, LLC (NMC) to renew the operating license for its Monticello Nuclear Generating Plant (MNGP) in Monticello, Minnesota. NAWO describes itself as an organization formed to educate people about environmental concerns, notably electric utility waste.²

On November 11, 2005, NAWO submitted a document to the Board entitled "Appeal of the North American Water Office to the November 1, 2005 Order of the Atomic Safety and Licensing Board Denying Standing and Rejecting Contentions of the North American Water Office in the Above Captioned Matter" ("Appeal"). In the document, less than two pages long, NAWO stated that it "appealed" the Board's November 1, 2005 order, but addressed the Board and asked it to "reconsider." Thus, it was not clear whether the document was intended as a motion for reconsideration by the Board or an appeal to the Commission.

On December 14, 2005, the Board issued a "Status Report" noting that NRC rules require that a petitioner must first obtain leave from the presiding officer to file a motion for reconsideration.³ The Board stated that in its view the document must be considered, "if anything," an appeal of the Board's decision.⁴ The Board referred the matter to the Commission for whatever action we deemed appropriate.⁵

¹ LBP-05-31, 62 NRC 735 (2005).

² *See* Request for a Hearing and Petition for Leave To Intervene by the North American Water Office (July 9, 2005) at 1.

³ Status Report (Dec. 14, 2005) at 1.

⁴ *Id.*

⁵ *Id.* at 2.

The Board's underlying ruling found that NAWO had no standing and that it had not offered an admissible contention. Thus, an appeal would have to convince us that NAWO both has standing and has presented at least one litigable contention. We conclude that the appeal states no grounds for the Commission to overrule the Board, for the following reasons:

1. NAWO's document does not conform to our procedural regulations governing appeals, which provide that a notice of appeal be accompanied by a brief.⁶ NAWO's "appeal" is devoid of legal argument and includes no citation to the record.⁷ The lack of a brief is sufficient reason, without more, to reject NAWO's "appeal."⁸

2. NAWO's "appeal" does not contend that the Board misapplied NRC rules relating to standing. Instead, it argues that the standards the Board used were "rules designed to deny standing and disenfranchise those with legitimate interests."⁹

The NRC generally follows judicial concepts of standing in its own proceedings.¹⁰ The Board found that NAWO had not shown that it, or any of its members, would suffer any concrete or particularized harm from the proposed license renewal. A review of the Board's decision shows that its standing analysis was based on U.S. Supreme Court precedent and was consistent with this agency's practice with respect to standing.¹¹ Nothing in NAWO's "appeal" suggests that the Board misapplied applicable law relating to standing.

3. Similarly, the "appeal" does not provide the Commission any reason to question the Board's ruling on NAWO's proposed contentions. NAWO does not specify which of its proposed contentions it is pursuing on appeal, but it appears that only proposed Contention 4 (Reactor Aging Problems Will

⁶ See 10 C.F.R. § 2.311(a). We conclude that no further pleading is forthcoming from NAWO. The time for filing an appeal of LBP-05-31 expired on November 14, 2005. Even if NAWO's "appeal" were intended as a motion for reconsideration, NAWO would have had 10 days from the Board's ruling on its motion (e.g., the "status report") to file an appeal. That deadline has also passed.

⁷ Both the NRC Staff and NMC declined to submit any substantive response to the arguments in NAWO's "appeal." See Letter of David R. Lewis to Administrative Judges informing them that NMC does not intend to respond further (Nov. 22, 2005); Letter of Michael A. Woods to Administrative Judges informing them that the NRC Staff does not intend to respond further (Nov. 22, 2005).

⁸ See *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-10, 37 NRC 192, 198 (1993), citing *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-92-3, 35 NRC 63, 66 (1992).

⁹ Appeal at 2.

¹⁰ See, e.g., *U.S. Department of Energy* (Plutonium Export License), CLI-04-17, 59 NRC 357, 363 (2004); *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-92-2, 35 NRC 47, 56 (1992).

¹¹ See LBP-05-31, 62 NRC at 744-45.

Escape Detection Until Too Late) relates to its argument.¹² The ‘‘appeal’’ states in conclusory fashion that ‘‘NAWO brought forward a whole new category of reactor components that had escaped scrutiny in [the] aging management program.’’¹³ It further argues that the fact that the NRC Staff issued a Request for Additional Information (RAI) to the Applicant concerning some of these components is ‘‘irrefutable evidence’’ of a genuine contention.¹⁴

The Board reasonably held that the proposed contention was ‘‘vague and speculative, and lack[ed] expert opinion, documents, or sources to support it’’; that it ‘‘present[ed] nothing more than an unsupported conclusion’’;¹⁵ and that insofar as the contention related to routine inspections, it fell outside the scope of a license renewal proceeding.¹⁶ Furthermore, we have held repeatedly that the mere issuance of a Staff RAI does not establish grounds for a litigable contention.¹⁷ NAWO offers no other argument in defense of its contention, while the Board’s reasoning appears correct on its face.¹⁸

For the foregoing reasons, NAWO’s ‘‘appeal’’ is *rejected*, and the Board’s decision is *affirmed*.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 2d day of February 2006.

¹²NAWO has evidently abandoned the remainder of its proposed contentions, which related to: the no-action alternative, radiation monitoring, security, drinking water safety, the effects of global warming on reactor operations, and severe accident mitigation analysis.

¹³Appeal at 2.

¹⁴*Id.*

¹⁵LBP-05-31, 62 NRC at 756. *See also* 10 C.F.R. § 2.309(f)(1)(v).

¹⁶LBP-05-31, 62 NRC at 756.

¹⁷*See, e.g., Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 336-37 (1999).

¹⁸It should be noted that the use of intemperate and disrespectful rhetoric such as that in NAWO’s ‘‘appeal’’ has no place in filings before the Commission or its Boards. *See, e.g., Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 2), ALAB-474, 7 NRC 746, 748-49 (1978); *Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-121, 6 AEC 319, 320 (1973). *Ad hominem* attacks do nothing to advance the Petitioner’s interests or the orderly administration of the Commission’s adjudicatory processes, and will not be tolerated.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 40-8968-ML

HYDRO RESOURCES, INC.
(P.O. Box 777, Crownpoint,
New Mexico 87313)

February 27, 2006

ORDER

By this Order, the Commission accepts review and sets a briefing schedule for the issue presented by Intervenors Eastern Navajo Diné Against Uranium Mining (ENDAUM) and Southwest Research and Information Center (SRIC) (together, “Intervenors”) with respect to the Presiding Officer’s January 6, 2006, Partial Initial Decision concerning radiological air emissions from *in situ* leach mining at Section 17 of Hydro Resources, Inc.’s (HRI) Crownpoint, New Mexico site.¹

In LBP-06-1, the Presiding Officer held, in making his overall determination, that radiation from surface mining spoil at the Section 17 site should be excluded from calculation of the “total effective dose equivalent” (TEDE) resulting from HRI’s licensed operations, because the definition of “background radiation” in 10 C.F.R. § 20.1003 does not require that radiation from the spoil be excluded from background radiation.

In their Petition for Review (“Petition”), Intervenors claim that the Presiding Officer erred in refusing to include radioactive air emissions from the onsite surface mining spoil (generated by a past owner’s underground conventional

¹LBP-06-1, 63 NRC 41 (2006).

mining operation) in the TEDE attributed to licensed operations. Among other things, the Intervenor urge that the Commission clarify the meaning of 10 C.F.R. §§ 20.1003 and 20.1301(a)(1), in view of an earlier decision in this matter issued by a different Presiding Officer. In LBP-99-15,² the Presiding Officer suggested that radioactive emissions from surface “tailings” left by a prior owner should not be treated as “background radiation.”³

We find that Commission review is warranted here. First, the delineation between what is and is not included in a licensed operation’s TEDE calculation presents a legal issue that is essential to a broad spectrum of Commission licensing decisions, as is the proper interpretation of the term “background radiation.” Intervenor’s Petition, therefore, presents a substantial and important question of law.⁴ Further, the Presiding Officer’s ruling is without governing precedent.⁵ The Commission has not had the opportunity to rule on the precise issue presented by the Intervenor’s Petition. Finally, as noted above, the Presiding Officer’s interpretation appears to conflict with a previous Presiding Officer’s interpretation of the same regulation in an earlier phase of this litigation, suggesting a need for Commission resolution.

The parties have already briefed this issue at length before the Presiding Officer. Should any party wish to supplement its briefs, it may do so with a brief, not to exceed ten pages, filed within 14 days following the issuance of this Order. The parties may submit reply briefs, not to exceed five pages, 7 days thereafter.

IT IS SO ORDERED.

For the Commission⁶

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 27th day of February 2006.

² 49 NRC 261 (1999).

³ *Id.* at 265-67.

⁴ See 10 C.F.R. § 2.786(b)(4)(iii) (2004). With respect to our rules of practice, this order refers to the rule designations in our former Part 2, which now have been substantially revised and renumbered. See Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182 (Jan. 14, 2004). The revised rules do not apply to this case, which began before their promulgation.

⁵ See 10 C.F.R. § 2.786(b)(4)(ii) (2004); *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), CLI-01-3, 53 NRC 22 (2001).

⁶ Chairman Diaz was not present when this item was affirmed. Accordingly the formal vote of the Commission was 4-0 in favor of the decision. Chairman Diaz, however, had previously voted to approve this Order and had he been present he would have affirmed his prior vote.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alan S. Rosenthal, Chairman
Dr. Paul B. Abramson
Dr. Richard F. Cole

In the Matter of

Docket No. 40-8838-MLA
(ASLBP No. 00-776-04-MLA)

U.S. ARMY
(Jefferson Proving Ground Site)

February 2, 2006

MEMORANDUM AND ORDER
(Granting Hearing Request and Deferring Hearing)

Before this Board is a hearing request filed by Save the Valley, Inc. (Petitioner or STV) regarding an application submitted by the Department of the Army (Licensee) for an amendment to its NRC materials license (License No. SUB-1435). The amendment would authorize an alternate schedule for submittal of a decommissioning plan for its Jefferson Proving Ground (JPG) site located in Madison, Indiana.

Requests for an alternate schedule for submittal of a decommissioning plan are governed by 10 C.F.R. § 40.42(g)(2). Licensees are required to submit decommissioning plans to the NRC “if required by license condition or if the procedures and activities necessary to carry out decommissioning of the site . . . have not been previously approved by the Commission and these procedures could increase potential health and safety impacts to workers or to the public.” 10 C.F.R. § 40.42(g)(1). Section 40.42(d) dictates that decommissioning plans be submitted to the NRC within 12 months of notifying the NRC that one of the following four events has occurred:

- (1) The license has expired pursuant to paragraph (a) or (b) of this section; or
- (2) The licensee has decided to permanently cease principal activities . . . at the entire site or in any separate building or outdoor area; or
- (3) No principal activities under the license have been conducted for a period of 24 months; or
- (4) No principal activities have been conducted for a period of 24 months in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with NRC requirements.

Section 40.42(g)(2), in turn, sets out the criteria that control:

The Commission may approve an alternate schedule for the submittal of a decommissioning plan required pursuant to paragraph (d) of this section if the Commission determines that the alternative schedule is [(1)] necessary to the effective conduct of decommissioning operations and [(2)] presents no undue risk from radiation to the public health and safety and [(3)] is otherwise in the public interest.

For the reasons hereinafter stated, Petitioner's hearing request is granted. So, too, is Petitioner's contemporaneously filed and unopposed motion to defer a hearing in this matter to await the NRC Staff's completion of its technical review of the alternate schedule proposal.

I. BACKGROUND

The present proceeding has a long history, which has been recounted in considerable detail in LBP-05-9, 61 NRC 218, 218-21 (2005), and therefore need not be repeated at length here. The following summary should suffice.

Between 1984 and 1994, the Licensee conducted, under the auspices of its NRC materials license, accuracy testing of depleted uranium (DU) tank penetration rounds at its JPG site. Five years after testing ceased, in December 1999, the Licensee submitted to the NRC Staff its first, of many, license amendment applications for decommissioning the JPG site. The Staff accepted the license amendment application for full technical review and published a notice of opportunity to request a hearing in the *Federal Register*. 64 Fed. Reg. 70,294 (Dec. 16, 1999). Petitioner filed a petition to intervene and request for hearing, which was subsequently granted in LBP-00-9, 51 NRC 159 (2000) (2000 proceeding) by a Presiding Officer.¹ At the Licensee's request, the proceeding was suspended pend-

¹ Proceedings pertaining to materials license amendments instituted prior to February 13, 2004, were conducted under then-10 C.F.R. Part 2, Subpart L, which provided that such proceedings would be

(Continued)

ing further interaction with the Staff regarding the submitted decommissioning plan.

In June 2001, the Licensee submitted a new plan, referred to as the final decommissioning/license termination plan (LTP). The Staff considered the LTP to supersede the 1999 plan. It refused, however, to accept the plan for full technical review until certain perceived deficiencies were corrected. Once those deficiencies had been resolved, the Staff informed the Licensee that site-specific sampling and modeling would need to be performed as an incident of the technical review. The Licensee declined to undertake those activities, believing them too dangerous because of the onsite presence of unexploded ordnance (UXO). As a result, in mid-2003 the Licensee withdrew the LTP.

Subsequent to its withdrawal of the LTP, the Licensee submitted to the Staff a new (third) proposal for a 5-year, possession-only license (POLA), which would be renewable until such time as it became possible to perform the required site characterization safely. In October 2003, the Staff published in the *Federal Register* a notice of opportunity to request a hearing on the POLA proposal. *See* 68 Fed. Reg. 61,471 (Oct. 28, 2003). Two months later, the 2000 proceeding was dismissed, without prejudice to an endeavor by Petitioner to seek its reinstatement should the decommissioning of the JPG site once again receive active NRC consideration at the Licensee's behest. LBP-03-28, 58 NRC 437 (2003). The following month, Petitioner's request for a hearing on the POLA proposal was granted, along with its unopposed motion to hold further proceedings in abeyance pending the completion of the Staff's technical review of the proposal. LBP-04-1, 59 NRC 27 (2004).

Over the course of the next 14 months, the Presiding Officer issued three separate unpublished orders (June 1, 2004; October 4, 2004; and March 3, 2005) in which he called upon the Staff to provide progress reports on its technical review of the POLA proposal. In response to the March 2005 request for a status report, the Staff stated that it was not clear "'how the Licensee intends to proceed'" and added that, pending such clarification from the Licensee, the Staff could not provide an estimated issuance date for the Safety Evaluation Report and Environmental Assessment. LBP-05-9, 61 NRC at 221 (citation omitted). It was by reason of this last communication from the Staff that, on March 31, 2005, the Presiding Officer sent a memorandum to the Commission expressing his concern regarding the then-current state of affairs. LBP-05-9, 61 NRC 218 (2005).

On June 20, 2005, the Commission issued CLI-05-13, 61 NRC 356 (2005), in which it directed the Licensee to provide a report to the Commission by July 11,

presided over by a single presiding officer. 10 C.F.R. § 2.1207(a) (2004). In January 2004, 10 C.F.R. Part 2 underwent significant revision, effective February 13, 2004. 69 Fed. Reg. 2182 (Jan. 14, 2004). One of the changes called for the employment of three-member licensing boards in materials license amendment proceedings.

2005, “detailing its past and planned efforts to gather the information necessary for the Staff to complete its technical and environmental reviews.” *Id.* at 357. In the same order, the Commission ordered the Staff to furnish, by July 20, 2005, a report “regarding the steps it plans to take to complete its reviews in light of the information provided by the Licensee.” *Ibid.* In the course of the order, the Commission referenced a May 25, 2005, submission by the Licensee to the Staff, which the Staff had taken to constitute a new license amendment request superseding the POLA proposal.

Pursuant to the Commission’s order, on July 7, 2005, the Licensee reported that it was abandoning the POLA proposal, and was now seeking instead “‘NRC approval of an alternate schedule for submittal of a decommissioning plan . . . and one 5 year period for the execution of appropriate site characterization, with the Licensee presenting the NRC a definitive license termination plan at the end of that period.’” *See* LBP-05-25, 62 NRC 435, 438 (2005) (citation omitted). The Staff’s report, filed on July 20, 2005, informed the Commission that, on June 16, it had told the Licensee that it was discontinuing review of the 2003 POLA proposal in view of the submission of the “‘superceding license amendment for an alternate schedule.’” *Ibid.* (citation omitted). The Staff further noted that, on June 27, it had published in the *Federal Register* a notice of opportunity to request a hearing on the Licensee’s May 25 request for an alternate schedule for submittal of a decommissioning plan. *See* 70 Fed. Reg. 36,964 (June 27, 2005).

After apprising the Commission of its new proposal for decommissioning the JPG site, on July 10, 2005, the Licensee filed a motion with the Presiding Officer seeking to dismiss the then-pending POLA proceeding on the ground of mootness. The Licensee noted that it no longer was seeking a 5-year renewable possession-only license for the JPG site, but instead now desired Commission approval of an alternate schedule for the submittal of a decommissioning plan. On September 12, the Presiding Officer issued an order, which for the reasons stated therein, (1) *sua sponte* reinstated the conditionally dismissed prior proceeding concerning the decommissioning of the JPG site; (2) referred the reinstatement to the Commission for its consideration; and (3) held the motion to dismiss the present proceeding in abeyance to await the outcome of the referral. LBP-05-25, 62 NRC at 435.

On October 26, 2005, the Commission affirmed the Presiding Officer’s decision to reinstate the earlier proceeding, and ordered that Petitioner’s standing “‘shall be considered already established.’” CLI-05-23, 62 NRC 546, 550 (2005). The Commission also instructed that the remainder of the adjudication be conducted by a three-member Licensing Board under the Rules of Practice revised in

2004.² In this connection, the Commission indicated that any future hearings in this proceeding were to be conducted under the informal hearing procedures of the now-revised Subpart L. CLI-05-23, 62 NRC at 548-50 (discussing how the changes to Subpart L would impact the present Petitioner in any future hearings).

In light of the Commission's decision, for Petitioner to be admitted as a party in the current proceeding it must "propose[] at least one admissible contention that meets the requirements of [10 C.F.R. § 2.309(f)(1)]." 10 C.F.R. § 2.309(a). Section 2.309(f)(1) sets forth six separate requirements that contentions must satisfy in order to be admitted, and for a hearing request to be granted. Section 2.309(f)(1) states:

A request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised. For each contention, the request or petition must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and
- (vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

II. SUBMISSIONS

A. Petitioner's Contentions

On November 23, 2005, Petitioner filed its petition to intervene and request for hearing in response to the June 27 *Federal Register* notice regarding the Licensee's

² CLI-05-23, 62 NRC at 550; *see supra* note 1. Because it had been instituted prior to the effective date of the Part 2 revision, but for that instruction the reinstated proceeding would have remained before a single Presiding Officer.

application for an alternate schedule for submittal of a decommissioning plan.³ In its submission, Petitioner advanced contentions concerned with the following four aspects of the Licensee's alternate schedule proposal: (1) the Environmental Radiation Monitoring Plan previously submitted by the Licensee in connection with its since-withdrawn 2003 POLA proposal (2003 ERMP), (2) the Field Sampling Plan, (3) the Health and Safety Plan, and (4) the Licensee's timeliness and financial assurance commitments. Petitioner asserts that each of these components contains "serious and glaring deficiencies which, if not corrected" will prevent the Licensee from conducting a proper site characterization pursuant to 10 C.F.R. § 40.42(g)(2). STV Petition at 13-14.

1. Environmental Radiation Monitoring Plan (ERMP) Contention

Contention A-1: "The Army's most recent Environmental Radiation Monitoring Plan is still inadequate in several material respects to meet the requirements of 10 C.F.R. § 10.42(g)(2) [*sic*]." STV Petition at 14.

Petitioner assigns six bases in support of Contention A-1, each of which addresses perceived inadequacies with the Licensee's 2003 ERMP. In a footnote, Petitioner explains that it is focusing on the 2003 ERMP as a result of a November 9, 2005, telephone conversation with the Army and the Staff. At that time, Petitioner was informed that the ERMP submitted with the 2003 POLA proposal was applicable to the Licensee's current request. *Id.* at 12 n.3.

Three of Petitioner's bases address the methods employed by the Licensee for analyzing the monitoring results received from the JPG site. Petitioner insists that greater detail should be provided regarding what future testing, assessment, and actions will occur once a specified "action level" is reached. *Id.* at 14 (bases (a), (b)). In addition, it maintains that the entire monitoring data history for the JPG site should be used in the ERMP's trend analysis. That history begins in 1984 or 1985; however, most of the trending analyses in the ERMP begin in 1994, 1996, or 1998. *Id.* at 15 (basis (e)).

Two bases relate to the water supply underlying the JPG site. In one, Petitioner asserts the ERMP should "acknowledge and address" the existence of persons in proximity to the JPG site who receive their drinking water from a private well. *Id.* at 14-15 (basis (c)). A second basis states that the ERMP should "acknowledge and address [the] critical fact" that the "aquifer underlying the JPG site is not sufficiently characterized to demonstrate its extent and gradient." *Id.* at 15 (basis (d)).

³ Petition To Intervene and Request for Hearing of Save the Valley, Inc. (Nov. 23, 2005) [hereinafter STV Petition]. The intervention petition and request for hearing were timely because they were filed within the extended period provided by Commission orders.

Lastly, Petitioner claims that the ERMP wrongly “dismisses the need for air monitoring during future prescribed burns . . . [and] the need for future biota sampling.” *Ibid.* (basis (f)). In conclusion, Petitioner states that Contention A-1 and its supporting bases are technical in character and will be supported with expert testimony.⁴

2. *Field Sampling Plan (FSP) Contention*

Contention B-1: “As filed, the FSP is not properly designed to obtain all of the verifiable data required for reliable dose modeling and accurate assessment of the effects on exposure pathways of meteorological, geological, hydrological, animal, and human features specific to the JPG site and its surrounding area.” STV Petition at 17.

Eighteen separate bases are provided in support of this contention. The majority — twelve of the eighteen — focus on alleged deficiencies in section 6 of the FSP, entitled “Field Activities.”⁵ Petitioner questions specific aspects of the Licensee’s methodology for obtaining the necessary data to characterize properly the JPG site. In particular, Petitioner would have it that FSP section 6.1 “Geophysics (Electrical Imaging),” FSP section 6.2 “Groundwater,” FSP section 6.3 “Biota Sampling,” FSP section 6.4 “Surface Water,” FSP section 6.6 “Sediment,” and FSP section 6.7 “Determining Distribution Coefficients (K_d Study)”⁶ are all inadequate for proper site characterization.⁷

The remaining six bases discuss areas of concern Petitioner believes the FSP does not adequately address. In Petitioner’s view, the FSP does not include a plan to analyze penetrators for transuranics, such as plutonium, americium, technetium, neptunium, or other impurities such as uranium-236. STV Petition at 19 (basis (k)). Additionally, the FSP assertedly does not provide for any air sampling analysis, even though the Health and Safety Plan acknowledges the presence of air quality concerns through its requirement of air sampling for the field workers. *Id.* at 20 (basis (m)). Two of the remaining bases maintain that

⁴ STV Petition at 15-16. Petitioner represents that the expert testimony will be supplied by Charles Norris, President, GeoHydro, Inc., and Diane Henshel, Associate Professor, School of Public and Environmental Affairs, Indiana University. Both individuals’ professional resumes are included with the petition.

⁵ See Field Sampling Plan: Depleted Uranium Impact Area Site Characterization Jefferson Proving Ground, Madison, Indiana (Attachment to Letter from Alan G. Wilson, Garrison Manager, to Dr. Tom McLaughlin, Office of Nuclear Material Safety and Safeguards (May 25, 2005)), ADAMS Accession No. ML051520319 [hereinafter Final FSP].

⁶ Basis (j) mistakenly references section 2.3.4.3 as the section discussing the K_d study. It is in fact section 6.7. See Final FSP at 6-41 to 6-44.

⁷ See STV Petition at 17-21 (bases (a)-(j), (l), (o)); see also Final FSP at 6-1 to 6-46.

the Licensee's sampling practices are not extensive enough, and the third urges the use of nonstandard data gathering and modeling tools to assist in future risk modeling. *Id.* at 20-21 (bases (n), (p), (q)). Finally, Petitioner asserts that, to assure "independent technical review," the Independent Technical Review Team Leader for the HASP and the FSP should not be the same person as the Project Manager, as is currently the case. *Id.* at 21 (basis (r)).

Petitioner states that Contention B-1 and its eighteen assigned bases are technical in character and will be supported with expert testimony.⁸

3. *Health and Safety Plan (HASP) Contentions*

Petitioner raises two contentions with respect to the Licensee's HASP.

Contention C-1: "The HASP is very generic and not site-specific in nature, without identification of the particular UXO hazards to be addressed or the specific locations in which they are found." STV Petition at 22.

Petitioner's four bases for this contention would have it that inadequate safety precautions are in place for the Licensee personnel who might encounter UXO on the JPG site during site characterization activities. In addition, Petitioner claims that the HASP should include more site-specific information, including the type, density, and specific location of the UXO expected to be encountered, as well as disclosure of the depth of the penetration of the UXO. *Id.* at 22-23.

Contention C-2: "The HASP is not effectively integrated with the FSP." *Id.* at 23.

Six bases are assigned for Petitioner's belief that the FSP does not adequately incorporate health and safety precautions with respect to the presence of UXO on the JPG site. Petitioner cites numerous FSP sections that allegedly contain little or no information regarding the safety procedures that will be used to guard against UXO hazards. *Id.* at 23-24 (citing FSP §§ 4.2, 6.1, 6.2, 6.5, 6.6). In addition, Petitioner insists that it would be more efficient to have the position of FSP Field Manager separate from that of the UXO expert. Currently, the FSP Field Manager is the only UXO expert on the project. *Id.* at 23.

Petitioner maintains that Contentions C-1 and C-2 are technical in character and will be supported with expert testimony, as well as by a series of technical

⁸ STV Petition at 21. Petitioner represents that the expert testimony will be supplied by Charles Norris and Diane Henshel, and their "analyses of the FSP . . . have been and will be guided especially but not exclusively by the criteria in NUREG-1757, Vol. 2, Section 4.2, and NUREG-1575, Section 5.3." *Ibid.*; see *supra* note 4.

guidance documents developed by the U.S. Army Corps of Engineers for working in UXO-contaminated environments.⁹

4. *Timeliness and Financial Assurance Contentions*

Petitioner raises two contentions with respect to the timeliness of the eventual decommissioning of the JPG site and the Licensee's financial assurances.

Contention D-1: "The alternate schedule being proposed fails to meet the requirements of 10 C.F.R. § 40.42 of a *definite* schedule for *timely* decommissioning of the JPG site." STV Petition at 25.

Petitioner asserts in its three bases for this contention that the alternate schedule being proposed by the Licensee does not meet the requirements of the "Timely Decommissioning Rule."¹⁰ Specifically, Petitioner faults the proposed schedule for not including a limit on the time permitted to decontaminate and to decommission the JPG site. Nor, in Petitioner's view, does the proposal place any burden on the Licensee to demonstrate that a longer period of time is required to complete decommissioning.¹¹ Lastly, Petitioner claims that the Licensee has not demonstrated a pattern of compliance with Commission decommissioning rules so as to "instill confidence that timely decommissioning will actually occur at JPG." STV Petition at 26.

Contention D-2: "The financial assurance provided by the Army's alternate schedule for decommissioning is insufficient to meet the requirements of 10 C.F.R. §§ 40.36 and 40.42 for a *complete, definite and quantified* financial commitment for the decommissioning of the JPG site." *Ibid.*

Petitioner's two bases for this contention address, first, the asserted failure of the Licensee to provide specific budget information for the 5-year site characterization period, and, second, the purported inadequacy of the Statement of Intent issued by the Licensee to the Staff with regard to the requirements of 10 C.F.R. § 40.36(e)(4). *Id.* at 26-27. The Statement of Intent did not include cost

⁹ STV Petition at 24. Petitioner represents that the expert testimony on these contentions will be supplied by James Pastorick, President, UXO Pro, Inc., whose resume is attached to the petition. Petitioner also provides citations and Web addresses for three U.S. Army Corps of Engineers guidance documents.

¹⁰ *Id.* at 25 (citing Timeliness in Decommissioning of Materials Facilities, 58 Fed. Reg. 4099-4101 (Jan. 13, 1993)).

¹¹ *Id.* at 25-26. Section 40.42(h)(1) of 10 C.F.R. requires licensees to "complete decommissioning of the site . . . as soon as practicable but no later than 24 months following the initiation of decommissioning" except where the Commission approves a request for an alternate schedule for completion of decommissioning under 10 C.F.R. § 40.42(i).

estimates for conducting the FSP and HASP, provided no documentation proving the requisite funds will be obtained, and did not indicate the potential effects the requested delay would have on the eventual cost of decommissioning. *Id.* at 27. According to Petitioner, all of the above is required under NRC regulatory guidance, specifically NUREG-1757, “Consolidated NMSS Decommissioning Guidance” (Sept. 2003). *Id.* at 27.

Petitioner asserts that Contentions D-1 and D-2 raise legal and/or regulatory policy issues, rather than technical issues. As such, it proposes to support these contentions with references to applicable NRC regulations, guidance documents, and precedents relevant to the Licensee’s request for an alternate schedule.¹²

B. Licensee’s Response to Petitioner’s Contentions

On December 16, 2005, the Licensee filed its response to the petition to intervene and request for a hearing.¹³ In general, Licensee asserts that none of Petitioner’s stated contentions is admissible. In its view, all of them are beyond the scope of the proceeding, as defined in 10 C.F.R. § 40.42(g)(2), because they “address themselves to a decommissioning plan which is not yet before the Commission.” Army Response at 1. Therefore, as Licensee sees it, all of the contentions are irrelevant and immaterial insofar as they concern the findings the NRC must make.

1. Petitioner’s ERMP Contention

In its response to Petitioner’s ERMP contention, the Licensee clarifies the status of its monitoring plan as it applies to its current amendment request. The Licensee states that the 2003 ERMP relied upon by Petitioner was never formally approved by the Staff and, therefore, “the Army is implementing the current protocol documented in *Standard Operating Procedure (SOP) DU Sampling Program*, ERMP SOP No. OHP 40-1 (Mar. 10, 2000) [(2000 SOP)]” subject to three subsequent updates “involving the analytical procedures . . . , health and safety protocol, and quality assurance procedures.”¹⁴ In addition, the Licensee notes that the 2003 ERMP was not discussed during a September 2005 meeting with the Staff and no action items were identified by the Staff with regard to the 2003 ERMP. This being so, the Licensee asserts, Petitioner’s ERMP contention is

¹² *Id.* at 27-28. Petitioner provides the resume of its attorney, Michael A. Mullett, Adjunct Professor, Indiana University School of Law and Lewis & Clark School of Law.

¹³ Army’s Response to Save the Valley, Inc.’s Concerns and Contentions as Set Forth in Its Petition To Intervene Filed Herein on November 23, 2005 (Dec. 16, 2005) [hereinafter Army Response].

¹⁴ Army Response at 3. The 2000 SOP defines the sampling locations, number of samples, media samples, and action levels. *Ibid.*

not “relevant or germane to the Army request for an alternate decommissioning schedule.” Army Response at 3.

The Licensee then proceeds to respond to each of Petitioner’s six bases. In doing so, however, it addresses the merits of each individual basis, rather than endeavor to explain why, assuming its relevance, the basis does not meet the contention admissibility requirements imposed by 10 C.F.R. § 2.309(f)(1). Given that the sole issue now at hand is whether Petitioner has submitted an admissible contention, to the extent the Licensee’s response addresses the merits of Petitioner’s contentions, it need not be considered at this time. *See Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 548 (1980) (stressing that “‘in passing upon the question as to whether an intervention petition should be granted, it is not the function of a licensing board to reach the merits of any contention contained therein’ ”) (quoting *Mississippi Power and Light Co.* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973)).

2. *Petitioner’s FSP Contention*

In response to Petitioner’s FSP contention, the Licensee maintains that Petitioner’s “comments are obviated given the Army’s acknowledgment of the issues and site characterization plans” as stated in two recent communications sent to the Staff.¹⁵ Thus, the Licensee considers Petitioner’s contentions “not . . . relevant or germane to the Army request for an alternate decommissioning schedule.” Army Response at 11. The Licensee then responds to each of Petitioner’s eighteen individual bases in much the same manner as it responded to the bases undergirding the ERMP contention. *Id.* at 11-32. To the extent that it focuses on the merits of Petitioner’s contention, and not on whether it is admissible under 10 C.F.R. § 2.309(f)(1), the Licensee’s response on this contention is similarly beyond present consideration.

3. *Petitioner’s HASP Contentions*

The Licensee responds generally to Petitioner’s HASP contentions by stating that “[a]ddenda are planned to address specific field elements of the program and are anticipated to include activity-specific hazard analyses and associated detailed

¹⁵ Army Response at 11 (citing U.S. Army, Responses to the NRC May 20, 2004, Request for Additional Information Regarding the Environmental Radiation Monitoring Plan (2004); U.S. Army, Letter from Alan Wilson, Garrison Commander, U.S. Army, to Tom McLaughlin, Materials Decommissioning Branch (Jan. 31, 2005)).

health and safety procedures beyond the protocol specified in the HASP.”¹⁶ In the individual responses to each of the bases for both Contentions C-1 and C-2, the Licensee discusses how the existing HASP and future HASP addenda address the issues raised by Petitioner. Although, at the outset, the Licensee maintained broadly that all of the contentions were beyond the scope of the proceeding, the Licensee did not renew that claim in discussing the HASP contentions specifically. *See id.* at 32-43.

4. Petitioner’s Timeliness and Financial Assurance Contentions

With respect to Contention D-1, the Licensee would have it that Petitioner’s first basis — the proposed alternate schedule fails to place a limit on the time permitted to decontaminate and decommission the JPG site — is an attempt to broaden the scope of what the Staff may consider in approving an alternate schedule; the actual decommissioning plan is not currently before the Commission. On that premise, Petitioner’s contention is said to be irrelevant and “not material to the three factors for re-scheduling set forth in [10 C.F.R.] § 40.42(g)(2).” *Id.* at 44-45. In response to the second and third bases, the Licensee insists first that the time requested to complete the site characterization is necessary and reasonable. Second, the Licensee maintains that the regulatory history of these proceedings is well documented and that there has never been a suggestion that the Staff has concerns about the Army’s ultimate compliance with NRC regulatory requirements. *Id.* at 45-47.

In response to Contention D-2, the Licensee notes that the Staff has never indicated that either the form or the content of the information provided in the Statements of Intent was unacceptable. Moreover, continues the Licensee, Petitioner is seeking “to impose non-existent or illegal requirements on the Army.” *Id.* at 49. Specifically, the Licensee states that Petitioner’s reliance on NUREG-1757 is misplaced, as it only provides guidance to the Staff and licensees and is not a substitute for regulations. *Ibid.*

In addition, the Licensee asserts that any Statement of Intent it submits to the Staff need not comply with 10 C.F.R. § 40.36(e)(4), and any attempt at such compliance might constitute a violation of the Anti-Deficiency Act, 31 U.S.C. § 1341(a)(1)(A), (B) (2000).¹⁷ The Licensee believes that 10 C.F.R. § 40.36(e)(5) recognizes the contradiction between the Anti-Deficiency Act and

¹⁶ *Id.* at 32 (noting that this strategy of future addenda is discussed repeatedly within the HASP, for instance, HASP sections 1 and 4).

¹⁷ *Ibid.* The Anti-Deficiency Act prohibits “an officer or employee of the United States Government [from] mak[ing] or authoriz[ing] an expenditure or obligation exceeding an amount available in a current appropriation; and may not involve the government in a contract or obligation for the payment of money before an appropriation is made.” *Id.* at 50.

10 C.F.R. § 40.36(e)(4) by providing that “when a government entity is assuming custody and ownership of a site, the method for providing financial assurance for decommissioning is ‘an arrangement that is deemed acceptable by such governmental [*sic*] entity.’” *Id.* at 50 (quoting 10 C.F.R. § 40.36(e)(5)).

C. NRC Staff’s Response to Petitioner’s Contentions

In its December 19, 2005 response,¹⁸ the Staff maintains that the majority of the contentions and supporting bases contained in the hearing request are inadmissible but concludes that, Petitioner having submitted one admissible contention, the hearing request should be granted.

1. Petitioner’s ERMP Contention

The Staff insists that Petitioner’s ERMP contention is beyond the scope of this proceeding. Staff Response at 9-13 (citing 10 C.F.R. § 2.309(f)(1)(iii)). We are told that the ERMP is a separate obligation imposed upon the Licensee in connection with its existing license and is not part of the current alternate schedule proposal. Specifically, it is said, “[t]he Army is required to have an ERMP as a requirement of maintaining its license, independent of its preparation for decommissioning” and according to the Staff, any modifications to the ERMP are subject to its approval. *Id.* at 10. Proceedings for alternate schedules for submittal of decommissioning plans do not encompass, as the Staff sees it, already imposed obligations such as the ERMP. Thus, the Staff concludes, the Licensee was not required to submit a new or updated ERMP with its pending application for an alternate schedule, nor is the ERMP a document considered by the Staff in its evaluation of the Licensee’s application for an alternate schedule. *Id.* at 12.

Although finding Contention A-1 totally flawed for this reason, the Staff goes on to address each of the six bases. The Staff asserts that each one is inadmissible for failing to meet either, or both, 10 C.F.R. § 2.309(f)(1)(v) (provide concise statement of alleged facts or expert opinions which support the petitioner’s position) and 10 C.F.R. § 2.309(f)(1)(vi) (provide sufficient information to show that a genuine dispute exists with the licensee on a material issue of law or fact). *Id.* at 13-18.

¹⁸ NRC Staff’s Response to Petition To Intervene and Request for Hearing Filed by Save the Valley, Inc. (Dec. 19, 2005) [hereinafter Staff Response].

2. *Petitioner's FSP Contention*

The Staff acknowledges that Contention B-1 is admissible, but only as supported by bases (a), (f), and (j). Staff Response at 19, 23, 27. With respect to the remaining fifteen bases, the Staff addressed them individually, urging that each one fails to state facts to support Petitioner's position (10 C.F.R. § 2.309(f)(1)(v)) and/or fails to raise a genuine dispute with the Licensee on a material issue of law or fact (10 C.F.R. § 2.309(f)(1)(vi)). *Id.* at 19-36.

3. *Petitioner's HASP Contentions*

The Staff insists that Petitioner's Contentions C-1 and C-2 are outside the scope of this proceeding. Staff Response at 36-37 (citing 10 C.F.R. § 2.309(f)(1)(iii)). According to the Staff, the "relevant safety-specific standard for the Staff's § 40.42(g)(2) inquiry is that the alternative schedule 'presents no undue risk from radiation to the public health and safety.'" *Id.* at 36 (quoting 10 C.F.R. § 40.42(g)(2) (emphasis added by Staff)). Petitioner's contentions, on the other hand, are said to concern "potential risks to site personnel who may encounter UXO" but do not identify these risks as radiological. *Id.* at 36-37. Further, with respect to Contention C-2 — that the HASP is not effectively integrated with the FSP — the Staff maintains that the regulations do not require the various parts of the application to be integrated in a specific manner. *Id.* at 37.

The Staff similarly finds unacceptable each basis Petitioner provides for Contentions C-1 and C-2. Not only, the Staff contends, is each basis outside the scope of this proceeding, but also each fails to state facts to support Petitioner's position (10 C.F.R. § 2.309(f)(1)(v)) and/or fails to raise a genuine dispute with the Licensee on a material issue of law or fact (10 C.F.R. § 2.309(f)(1)(vi)). *Id.* at 37-46.

4. *Petitioner's Timeliness and Financial Assurance Contentions*

The Staff asserts that both Contentions D-1 and D-2 are inadmissible. With respect to Contention D-1, and all three of its bases, the Staff would have it that 10 C.F.R. § 40.42(g)(2) "does not require the licensee to specify in advance what timetable it will eventually propose in a final decommissioning plan." Staff Response at 47. Given that an actual decommissioning plan is not before the Staff at this point, we are told, any issues related to a decommissioning timetable are necessarily outside the scope of this proceeding. *Ibid.* (citing 10 C.F.R. § 2.309(f)(1)(iii)). In addition, all three bases are said to fail to raise a genuine dispute with the Licensee on a material issue of law or fact. According to the Staff, Petitioner's bases (a) and (b) amount to mere speculation and do "not amount to a genuine dispute," as they provide no support for the claim that the Licensee

will not complete the eventual decommissioning in a timely manner. *Id.* at 48, 50. With respect to Petitioner’s final basis, the Staff argues that the Licensee has acknowledged its regulatory obligations, despite Petitioner’s assertions to the contrary, and there has been no identification of “actual failures by the Army to comply with NRC regulations.” *Id.* at 52.

The Staff similarly maintains that Contention D-2 is flawed. First, the contention is said to be beyond the scope of the proceeding given that 10 C.F.R. § 40.42(g)(2) “does not require the licensee to provide new cost estimates either for site characterization activities or for eventual decommissioning.” *Id.* at 56. Although 10 C.F.R. § 40.36 requires licensees “to update periodically their cost estimate and assurances,” *id.* at 54, the Staff considers this to be an independent obligation separate from those imposed upon licensees under section 40.42(g)(2). Thus, such financial assurances are immaterial to the Staff’s section 40.42(g)(2) evaluation. *Id.* at 54, 56. Finally, the Staff insists that neither basis raises a genuine dispute with the Licensee about a material issue of law or fact. “STV has identified no specific grounds to doubt the Army’s intent or ability to perform the activities in its proposed alternative schedule.” *Id.* at 57.

D. Petitioner’s Reply

On January 3, 2006,¹⁹ Petitioner filed an 84-page reply to the filings of the Licensee and the Staff.²⁰ The first twenty pages respond to the Licensee’s and the Staff’s arguments that the ERMP, HASP, and timeliness and financial assurance contentions are outside the scope of the proceeding. In the ensuing sixty-four pages, Petitioner addresses, basis-by-basis, the assertions of the Licensee and the Staff.

Petitioner would have it that all of its contentions are within the scope of this proceeding. According to Petitioner, the relevant scope is that of the original, now reinstated 2000 proceeding, LBP-00-9, 51 NRC 159 — which, we are told, included “the entire decommissioning process for the JPG DU site.” Petitioner’s Reply at 4. Petitioner notes that, in affirming the reinstatement, the Commission “expressly characterized the reinstated proceeding as ‘the Army’s new decommissioning proceeding,’” which “‘raises substantially the same issues as the license termination proceeding [the Presiding Officer] dismissed without prejudice in 2003.’” *Ibid.* (quoting CLI-05-23, 62 NRC at 548). Petitioner further insists that, even if the scope of the current hearing request were not deemed

¹⁹ On December 23, 2005, the Board granted via Internet electronic-mail transmission, Petitioner’s unopposed motion for extension of time to reply. *See* Unopposed Motion for Extension of Time by Save the Valley, Inc. To File Replies in Support of Request for Hearing (Dec. 22, 2005).

²⁰ Reply in Support of Petition To Intervene and Request for Hearing of Save the Valley, Inc. (Jan. 3, 2006) [hereinafter Petitioner’s Reply].

to be the same as that of the 2000 proceeding, the Licensee's "ERMP, FSP, and decommissioning timetable, budget, and financial assurance [would still be] within the scope" pursuant to the Commission's Timely Decommissioning Rule²¹ and the Staff's own Standard Review Plan.²² Petitioner's Reply at 5.

With respect to the ERMP, Petitioner maintains that "the Army's 2003 ERMP proposal is both logically and practically intertwined with its JPG Site Characterization Project." *Id.* at 10. Should the Board conclude that the Licensee's 2003 ERMP had been withdrawn (as argued by the Staff), Petitioner would wish now to be accepted a restated Contention A-1. As set forth in the reply, it would assert that the Licensee's alternate schedule request is inadequate for failing to "propose a timely revision to its [ERMP] . . . as required by 10 C.F.R. § 10.42(g)(2) [*sic*] during the lengthy period required to implement the alternate schedule request." *Id.* at 10-11. Additionally in that eventuality, Petitioner would wish to reserve "any right it may subsequently have to request a hearing on any replacement ERMP" submitted by the Licensee. *Id.* at 10.

With respect to the Licensee's HASP, Petitioner contends that it "is not and cannot be outside the scope of this proceeding given its critical implications for the actual conduct of the FSP and the ultimate adequacy of JPG site characterization." *Id.* at 14. Petitioner notes that the HASP was forwarded to the Staff with the Licensee's May 25, 2005, letter requesting the alternate schedule, and that "the [Licensee] itself (correctly) considers the HASP to be an integral part of the JPG Site Characterization Project." *Id.* at 13.

Finally, Petitioner argues that, given the protracted delay in decommissioning the JPG site, "this is clearly the appropriate time to require the [Licensee] to provide an updated timetable, projected budget, and financial assurance for the recently reinstated decommissioning process at the JPG DU site in its entirety." *Id.* at 16. As Petitioner sees it, the Staff's Standard Review Plan contemplated that a timetable, cost estimate, and financial assurance would be required. *Id.* at 17. Alternatively, Petitioner requests that, should the Board determine that issues relating to timeliness and financial assurance are limited to the Licensee's JPG DU Site Characterization Project, it be given leave to restate Contentions D-1 and D-2.²³

²¹ 58 Fed. Reg. 4099-4101 (Jan. 13, 1993).

²² Division of Waste Management, Standard Review Plan, Licensee Requests To Extend the Time Period Established for Initiation of Decommissioning Activities (Apr. 11, 2000), ADAMS Accession No. ML003691766.

²³ Petitioner's Reply at 17-19. Petitioner's restated Contention D-1 asserts that the Licensee's proposed alternate schedule "fails to meet the requirements of 10 C.F.R. § 40.42(g)(2) for a *timely* characterization of the JPG DU site." *Id.* at 17. Restated Contention D-2 asserts that "[t]he financial assurance provided . . . is insufficient to meet the requirements of 10 C.F.R. §§ 40.36 and 40.42(g)(2) for a *complete, definite and quantified* financial commitment for the characterization of the JPG DU site." *Id.* at 18.

III. ANALYSIS

A. Admissibility of Petitioner's Contentions

As previously noted, in order for the Board to grant a request for a hearing, a petitioner must "propose[] at least one admissible contention that meets the requirements of [10 C.F.R. § 2.309(f)(1)]." 10 C.F.R. § 2.309(a). We now turn to whether there is such a contention here.

Contention B-1 states: "As filed, the FSP is not properly designed to obtain all of the verifiable data required for reliable dose modeling and accurate assessment of the effects on exposure pathways of meteorological, geological, hydrological, animal, and human features specific to the JPG site and its surrounding area." STV Petition at 17. Basis (a) for the contention asserts:

The EI geophysical study which will follow the fracture analysis study, as described in section 6.1 of the FSP, is supposed to find all significant karst features and location of the water table. From these studies, 10 to 20 pairs of monitoring wells are proposed to attempt to tie into "conduits" of ground water flow. This study may help to site monitoring wells, but stream gauging studies should be an early and integral part of the search for likely conduits. The stream reaches of strong gain would be a very strong direct indicator of the discharge points of ground water "conduits." EI is an indirect technique and can miss conduits or identify features that are not conduits. The FSP alludes to doing stream gauging in its discussion of well location criteria, but the time table shown indicates stream studies will follow the ground water studies by a year.

Ibid. Upon analysis, it is clear to us, as it apparently was to the Staff, that, given this assigned basis, Contention B-1 satisfies all six of the requirements set forth at 10 C.F.R. § 2.309(f)(1).

First, the contention provides "a specific statement of the issue of law or fact to be raised or controverted," namely, calling into question the adequacy of the Licensee's FSP. 10 C.F.R. § 2.309(f)(1)(i). Second, basis (a)'s assertion regarding the inadequacy of the EI technique for detecting water conduits underlying the JPG site constitutes a "brief explanation of the basis for the contention." 10 C.F.R. § 2.309(f)(1)(ii).

The third requirement is that the "issue raised in the contention is within the scope of the proceeding." 10 C.F.R. § 2.309(f)(1)(iii). As previously discussed, a request for an alternate schedule for submittal of a decommissioning plan is governed by 10 C.F.R. § 40.42(g)(2). That section sets forth three criteria for assessing whether such a request may be granted. Section 40.42(g)(2) states:

[t]he Commission may approve an alternate schedule for the submittal of a decommissioning plan . . . if the Commission determines that the alternative schedule is

[(1)] necessary to the effective conduct of decommissioning operations and [(2)] presents no undue risk from radiation to the public health and safety and [(3)] is otherwise in the public interest.

Contention B-1 and its supporting basis (a) satisfy each of these three criteria.

Whether the FSP is “properly designed” to assess accurately “the effects on exposure pathways . . . specific to the JPG site and its surrounding area,” STV Petition at 17, is relevant to the effectiveness of the Licensee’s decommissioning operations. If the methods proposed in the FSP do not actually provide for the accurate identification of all potential water conduits, including any significant karst features, the Licensee will be unable to effectively conduct decommissioning operations. In that regard, if, during the 5-year period proposed in the current request, the Licensee fails to identify all potential water conduits, there will be an “undue risk” of radiation exposure to the public. Any unidentified water conduits could provide a pathway for radiation release to the area surrounding the JPG site. Clearly, preventing such an occurrence is “otherwise in the public interest.” Thus, Contention B-1 and its supporting basis (a) are within the scope of this proceeding.

The fourth requirement, 10 C.F.R. § 2.309(f)(1)(iv), provides that the “issue raised in the contention is material to the findings the NRC must make.” In connection with its determination as to whether the Licensee should be granted an alternate schedule (to allow five additional years to submit its decommissioning plan), the Staff presumably will have to consider whether the Licensee’s FSP enables the latter to locate accurately all available pathways for radiation exposure. The adequacy of the FSP during this 5-year proposed period goes to the heart of what is necessary for the effective conduct of decommissioning operations, and whether there is a potential undue risk to the public from radiation exposure.

Section 2.309(f)(1)(v), the fifth admissibility requirement, mandates that the contention provide a “concise statement of the alleged facts or expert opinions which support [its] position on the issue and on which [it] intends to rely at hearing.” Petitioner states in basis (a) that stream gauging “would be a very strong direct indicator of the discharge points of ground water ‘conduits’” whereas “EI is an indirect technique and can miss conduits or identify features that are not conduits.” STV Petition at 17. These matters are, as Petitioner notes in Part IV.B.2 of its petition, “technical in character,” and Petitioner also notes that “STV will support them at the requested hearing with the expert testimony of [specified individuals] In preparing their expert analyses of the FSP [these experts] have been and will be guided . . . by [NRC guidance documents].” *Id.* at 21. Taken together, these statements inform the Board that Petitioner has been advised by the named experts in preparation of this contention and that these experts will be relied upon at the hearing. We therefore find this contention to be a sufficiently concise statement of expert opinion (together with the expected

testimony of the listed experts) upon which Petitioner intends to rely at a hearing in support of its contention that the FSP is “not properly designed” to satisfy the admissibility criteria set out in 10 C.F.R. § 2.309(f)(1)(v).

The final requirement, found in section 2.309(f)(1)(vi), is that Petitioner show “a genuine dispute exists with the . . . licensee on a material issue of law or fact.” The Licensee proposes EI testing for identifying water conduits with “stream studies [to] follow the ground water studies by a year.” STV Petition at 17. Petitioner disputes the effectiveness of this technique, and maintains that “stream gauging studies should be an early and integral part of the search for likely conduits.” *Ibid.* As discussed above with respect to subsection (iv), the adequacy of the Licensee’s FSP for locating all possible water conduits is a material issue of fact in this proceeding. Additionally, Petitioner satisfies the subpart (vi) requirement to “include references to specific portions of the application,” with its citation to section 6.1 of the FSP.

Accordingly, Contention B-1 and its supporting basis (a) are admissible, and therefore, Petitioner’s hearing request is granted.

B. Deferral of Hearing

As we have seen, Petitioner’s hearing request advances several contentions, each supported by numerous bases. Having found acceptable one of the contentions along with a supporting basis, it is not necessary to consider anything else for the purpose of passing upon the viability of that request. Nonetheless, if this matter were destined for immediate hearing, there would be every reason to pass at this juncture upon whether the other claims that Petitioner presents in its contentions and assigned bases likewise pass muster.

As also previously noted, additionally before us, however, is Petitioner’s unopposed motion to defer a hearing in this matter to abide the event of the completion of the Staff’s technical review (which the Staff has told us will be accompanied by a Safety Evaluation Report, an Environmental Assessment, and, if justified by the findings and conclusions in those documents, the issuance of the requested license amendment).²⁴ The fact that all three parties have agreed to a deferral of the hearing can be taken as reflecting an implicit unanimous recognition that the fruits of the technical review might have a significant impact upon what issues might require exploration at a hearing.

We concur in that view. It seems to us quite possible, if not probable, that, upon its examination of the documents issued by the Staff at the end of the technical review, the Petitioner will find reason to alter in at least some respects the tack that it has taken in the challenge to the alternate schedule proposal that

²⁴ See NRC Staff Response to Board Order of January 9, 2006 (Jan. 17, 2006).

is contained in the hearing request. For one thing, Petitioner might well find that some of the concerns that are set forth in the request have been fully resolved. At the same time, it might determine, on the basis of the disclosures in the technical review documents, that there is cause to seek leave to amend one or more existing contentions or to add new ones. Any such endeavor would, of course, have to comply with the provisions of the Rules of Practice governing the submission of late contentions.²⁵

In the circumstances, we are granting the motion to defer and, in the interest of the economical use of our resources, are also postponing the examination of the balance of Petitioner's claims to determine whether they are in conformity with the requirements of the Rules of Practice. Once the technical review has been completed and the documents associated with it are made publicly available, we will enter an order providing Petitioner with a reasonable opportunity to review those documents and to decide whether it wishes to make changes in what it now has presented to this Board. Following the receipt of the Licensee and Staff responses to any alteration that the Petitioner might seek, the Board will decide the appropriate scope of the proceeding, perhaps after first conducting a prehearing conference with the parties.

We need add on this score only that, given the extended history of the proceeding and the nature of the license amendment now sought, it can scarcely be thought that the deferral of a hearing to await the completion of the technical review might of itself adversely impact the public interest. Apart from the fact that the activity on the JPG site ceased 12 years ago without decommissioning having as yet been accomplished, if the alternate schedule proposal is ultimately accepted, it most likely will be at least another 5 years before that objective might be realized. Although we have currently no information as to when completion of the technical review might be forthcoming, it is readily apparent that this proceeding cannot possibly be deemed to be on a critical path.

For the foregoing reasons, Petitioner's November 23, 2005, petition to intervene and request for a hearing is *granted*. Also *granted* is its contemporaneous and unopposed motion to defer a hearing in the matter to await the completion of the NRC Staff's technical review of the Licensee's alternate schedule proposal that is the subject of the hearing request. Once the Staff has released the documents reflecting the results of that review, the Board will enter a further order

²⁵ Needless to say, however, our deferral of consideration of existing contentions would not raise timeliness issues were those contentions to remain unaltered.

establishing the period within which Petitioner might seek to amend the hearing request.²⁶

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD²⁷

Alan S. Rosenthal, Chairman
ADMINISTRATIVE JUDGE

Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

Rockville, Maryland
February 2, 2006

²⁶The obligation of the NRC Staff to submit a hearing file (*see* 10 C.F.R. § 2.1203) is likewise deferred pending further order of this Board.

²⁷Copies of this Memorandum and Order were sent this date by Internet electronic mail transmission to the counsel for the parties.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

E. Roy Hawkens, Chairman
Dr. Paul B. Abramson
Dr. Anthony J. Baratta

In the Matter of

Docket No. 50-0219-LR
(ASLBP No. 06-844-01-LR)
(License Renewal)

AMERGEN ENERGY COMPANY, LLC
(Oyster Creek Nuclear Generating
Station)

February 27, 2006

RULES OF PRACTICE: STATE STANDING TO INTERVENE

Commission regulations implementing the statutory standing requirement (42 U.S.C. § 2239(a)(1)(A)) establish that a State has standing when a proceeding involves a “facility located within [the State’s] boundaries” (10 C.F.R. § 2.309(d)(2)(i)). Thus, when a State advises a Licensing Board that a proceeding involves a facility within its borders, the Board “shall not require a further demonstration of standing” (*id.* § 2.309(d)(2)(ii)).

RULES OF PRACTICE: REPRESENTATIONAL STANDING TO INTERVENE

For an organization to establish representational standing, it must: (1) show that at least one of its members may be affected by the licensing action and, accordingly, would have standing to sue in his or her own right; (2) identify that member by name and address; and (3) show that the organization is authorized

to request a hearing on behalf of that member. See *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 202 (2000).

RULES OF PRACTICE: STANDING TO INTERVENE AND PROXIMITY RULE

Ordinarily, for an individual to establish standing, he must show injury in fact that can fairly be traced to the challenged action and that is likely to be redressed by a favorable decision (*Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999)). However, an individual satisfies these requirements by showing that his residence is within the geographical area that might be affected by an accidental release of fission products. The “rule of thumb” in reactor licensing proceedings is that persons who reside within a 50-mile radius of a reactor plant are presumed to have standing (*Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994)).

RULES OF PRACTICE: STANDING TO INTERVENE AND PROXIMITY RULE FOR REACTOR LICENSE RENEWAL

The radioactive “source” posing the danger in a reactor license renewal case is the identical “source” giving rise to the 50-mile proximity presumption rule for reactor construction permit and operating license proceedings. The Commission has endorsed a 50-mile rule in the latter context (*Sequoyah Fuels Corp.*, CLI-94-12, 40 NRC at 75 n.22), and we find that the same 50-mile presumption should apply in reactor license renewal cases.

LICENSE RENEWAL PROCEEDINGS: SCOPE (NRC SAFETY REVIEW)

The scope of a license renewal proceeding is cabined by 10 C.F.R. Part 54. 60 Fed. Reg. 22,461 (May 8, 1995). In particular, issues relating to a plant’s “current licensing basis” (10 C.F.R. § 54.3(a)) are ordinarily beyond the scope of a license renewal review, because “those issues already [are] monitored, reviewed, and commonly resolved as needed by ongoing regulatory oversight” (*Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 8 (2001)).

RULES OF PRACTICE: WAIVER

A petitioner that fails to submit a reply brief is foreclosed from challenging the assertions advanced by the licensee and the NRC Staff in their answers, unless it put such assertions in issue in its petition. *See Blackwell v. Cole Taylor Bank*, 152 F.3d 666, 673 (7th Cir. 1998) (“silence about facts . . . constitute[s] a waiver of the specific factual contentions made by the opposing party in a brief filed earlier”); *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 334-35 (1973) (Licensing Board is authorized to accept assertions of the applicant and Staff that have not been controverted by a party).

LICENSE RENEWAL PROCEEDINGS: SCOPE (NRC SAFETY REVIEW)

The scope of the NRC’s public health and safety review in the context of a license renewal proceeding ordinarily is limited to “‘a review of the plant structures and components that will require an *aging* management review for the period of extended operation and the plant’s systems, structures, and components that are subject to an evaluation of time-limited *aging* analyses’ ” (*Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 363-64 (2002) (quoting *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 212 (2001))).

LICENSE RENEWAL PROCEEDINGS: SCOPE (NEPA REVIEW)

The scope of the NRC’s environmental review in the context of a license renewal proceeding is limited by 10 C.F.R. Part 51. The Commission has determined that a number of environmental issues that might otherwise be relevant to license renewal shall be resolved generically for all plants, and such issues — which are classified in 10 C.F.R. Part 51, Subpart A, Appendix B as “Category 1” issues — are normally “beyond the scope of a license renewal hearing” (*Turkey Point*, CLI-01-17, 54 NRC at 15).

LICENSE RENEWAL PROCEEDINGS: SCOPE (NEPA REVIEW)

Issues in Appendix B, designated as “Category 2” issues — issues for which (1) the applicant must make a plant-specific analysis of environmental impacts in its Environmental Report and (2) the NRC Staff must prepare a supplemental Environmental Impact Statement — ordinarily are deemed to be within the scope of license renewal proceedings. *See Turkey Point*, CLI-01-17, 54 NRC at 11-13.

RULES OF PRACTICE: CONTENTIONS THAT ARE THE SUBJECT OF ONGOING RULEMAKING

Agencies generally are free to exercise their discretion in determining whether to formulate policy through rulemaking or adjudication (*Heckler v. Campbell*, 461 U.S. 458, 467 (1983)). Where the Commission has initiated rulemaking proceedings that apply to the facility in question and that directly implicate a proposed contention, a board ordinarily should refrain from admitting that contention. See *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999) (licensing boards “ ‘should not accept in individual license proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission’ ”) (quoting *Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85 (1974)).

RULES OF PRACTICE: PRESUMPTION THAT LICENSEE WILL COMPLY WITH ITS COMMITMENTS TO THE NRC STAFF

Absent evidence to the contrary, a licensing board will not assume licensee will act in derogation of its formal commitments to the NRC Staff. See *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19, 29 (2003) (Commission has “ ‘long declined to assume that licensees will refuse to meet their obligations’ ”).

RULES OF PRACTICE: CONTENTIONS (SPECIFICITY AND BASIS)

A contention will be ruled inadmissible where the petitioner has offered “ ‘only ‘bare assertions and speculation’ ” (*Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003)).

RULES OF PRACTICE: PRESUMPTION THAT LICENSEE WILL COMPLY WITH REGULATIONS

Absent evidence to the contrary, the Commission will not “ ‘assume that licensees will contravene our regulations’ ” (*GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000)).

RULES OF PRACTICE: PETITIONER’S OBLIGATION TO RAISE AND DEVELOP ARGUMENT IN PETITION

A petitioner that fails to develop an argument in its petition is foreclosed from doing so in the first instance in its reply brief. See *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004).

RULES OF PRACTICE: CONTENTIONS (SPECIFICITY AND BASIS)

Section 2.309(f)(1)(v) of 10 C.F.R. — which requires a “concise statement of the alleged facts or expert opinions” that support its position — does not require the submission of an expert opinion, nor does it require that an expert opinion be submitted in the form of admissible evidence (*Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 22 n.1 (1998)). The contention admissibility rules are *not* designed to erect an onerous evidentiary hurdle, but rather “help[] to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions” (*Oconee*, CLI-99-11, 49 NRC at 334).

RULES OF PRACTICE: CONTENTIONS (SPECIFICITY AND BASIS)

The Commission has stated that at the contention filing stage, “the factual support necessary to show that a genuine dispute exists need not be in formal evidentiary form, nor be as strong as that necessary to withstand a summary disposition motion” (*Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 51 (1994)). Rather, the petitioner need simply make “a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate” (*ibid.*).

RULES OF PRACTICE: OBLIGATION TO DEVELOP ARGUMENTS

Every participant in the adjudicative process has an obligation to fully develop its arguments. “Our adversarial system relies on the advocates to inform the discussion and raise [and develop] the issues” (*Independent Towers of Washington v. Washington*, 350 F.3d 925, 929 (9th Cir. 2003)).

LICENSE RENEWAL PROCEEDINGS: SCOPE (NRC SAFETY REVIEW)

Where a petitioner's contention does not challenge the licensee's current, ongoing operations or programs conducted under an existing license, but rather focuses on the licensee's aging management programs for the period of extended operation, asserting that such monitoring activities may not be sufficient to identify and control the effects of aging that will occur during the 20-year renewal period, such contention falls squarely within the scope of a license renewal proceeding.

RULES OF PRACTICE: BOARD'S FUNCTION IN EXAMINING THE ADMISSIBILITY OF CONTENTIONS

At the contention admissibility stage of a proceeding, a Licensing Board will not adjudicate merits-related issues. *See Mississippi Power and Light Co.* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973) ("in passing upon the question as to whether an intervention petition should be granted, it is not the function of a licensing board to reach the merits of any contention contained therein"). The sole question presented is whether the petitioner has submitted the requisite "minimal factual and legal foundation" (*Oconee*, CLI-99-11, 49 NRC at 334) to support its contention.

**MEMORANDUM AND ORDER
(Denying New Jersey's Request for Hearing and Petition To Intervene, and Granting NIRS's Request for Hearing and Petition To Intervene)**

Pending before the Board are two requests for hearing and petitions to intervene filed in response to a September 15, 2005 Notice of Opportunity for Hearing (70 Fed. Reg. 54,585 (Sept. 15, 2005)) concerning an application by AmerGen Energy Company, LLC ("AmerGen") to renew its operating license for the Oyster Creek Nuclear Generating Station ("Oyster Creek") for 20 years beyond the current expiration date of April 9, 2009. One petition was filed by the New Jersey Department of Environmental Protection [hereinafter referred to as New Jersey], and the other petition was filed by the Nuclear Information and Resource Service (NIRS), Jersey Shore Nuclear Watch, Inc., Grandmothers, Mothers and More for Energy Safety, New Jersey Public Interest Research Group, New Jersey Sierra Club, and New Jersey Environmental Federation [hereinafter referred to

collectively as NIRS].¹ AmerGen and the NRC Staff filed answers opposing the petitions.² NIRS filed a reply brief, but New Jersey did not.³

Entities who — like New Jersey and NIRS — seek leave to intervene as a party in an adjudicatory proceeding must (1) establish standing, and (2) proffer at least one admissible contention. *See* 10 C.F.R. § 2.309(a). For the reasons discussed below, we deny New Jersey’s Request for Hearing and Petition To Intervene, because although New Jersey has established standing, we conclude that it has failed to proffer an admissible contention. However, we grant NIRS’s Request for Hearing and Petition To Intervene, because we conclude that NIRS has established standing and has proffered an admissible contention.

I. STANDING ANALYSIS

A. New Jersey Has Demonstrated Standing

The standing requirements for NRC adjudicatory proceedings derive from the Atomic Energy Act (AEA), which requires the NRC to provide a hearing “upon the request of any person whose interest may be affected by the proceeding” (42 U.S.C. § 2239(a)(1)(A) (2000)). Commission regulations implementing this statutory requirement establish that a State has standing when a proceeding involves a “facility located within [the State’s] boundaries” (10 C.F.R. § 2.309(d)(2)(i)). Thus, when a State advises a Licensing Board that a proceeding involves a facility within its borders, the Licensing Board designated to rule on the petition for leave to intervene “shall not require a further demonstration of standing” (*id.* § 2.309(d)(2)(ii)).

¹ *See* [New Jersey Department of Environmental Protection] Request for Hearing and Petition for Leave To Intervene (Nov. 14, 2005) [hereinafter New Jersey Petition]; [NIRS] Request for Hearing and Petition To Intervene (Nov. 14, 2005) [hereinafter NIRS Petition].

² *See* AmerGen’s Answer Opposing [New Jersey’s] Request for Hearing and Petition To Intervene (Dec. 12, 2005) [hereinafter AmerGen Answer to New Jersey Petition]; AmerGen’s Answer Opposing NIRS et al. Request for Hearing and Petition To Intervene (Dec. 12, 2005) [hereinafter AmerGen Answer to NIRS Petition]; NRC Staff Answer to [New Jersey] Request for Hearing and Petition To Intervene (Dec. 12, 2005) [hereinafter NRC Staff Answer to New Jersey Petition]; NRC Staff Answer to [NIRS] Request for Hearing and Petition To Intervene (Dec. 14, 2005) [hereinafter NRC Staff Answer to NIRS Petition].

³ *See* Combined Reply of [NIRS] (Dec. 19, 2005) [hereinafter NIRS Reply]. The participants in this proceeding also filed supplemental briefs pursuant to unpublished orders issued by this Board. On January 17, 2006, NIRS, New Jersey, AmerGen, and the NRC Staff each filed a supplemental brief [hereinafter cited, respectively, as NIRS Supp. Brief, New Jersey First Supp. Brief, AmerGen First Supp. Brief, and NRC Staff First Supp. Brief]. On January 30, 2006, New Jersey, AmerGen, and the NRC Staff each filed a second supplemental brief [hereinafter cited, respectively, as New Jersey Second Supp. Brief, AmerGen Second Supp. Brief, and NRC Staff Second Supp. Brief].

In the instant case, New Jersey avers that “[t]he Oyster Creek nuclear generating station is located in Lacey Township, New Jersey” (New Jersey Petition at 1). As the NRC Staff and AmerGen both concede (NRC Staff Answer to New Jersey Petition at 2-3; AmerGen Answer to New Jersey Petition at 3), the regulations require no further showing of standing from New Jersey.⁴

B. NIRS Has Demonstrated Representational Standing

An organization that wishes to establish standing may do so in one of two ways. First, it may demonstrate organizational standing — that is, it may show that its own interests as an organization will be harmed by the proceeding. Alternatively, it may demonstrate representational standing — that is, it may show that the interests of at least one of its members will be harmed by the proceeding. *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998). NIRS asserts that it satisfies the requirements for representational standing (NIRS Petition at 1-3; NIRS Reply at 2-4). We agree.⁵

For an organization to establish representational standing, the organization must: (1) show that at least one of its members may be affected by the licensing action and, accordingly, would have standing to sue in his or her own right; (2) identify that member by name and address; and (3) show that the organization is authorized to request a hearing on behalf of that member. *See GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 202 (2000). As shown below, each of the six organizations (which we refer to collectively as NIRS) satisfies these three requirements.

First, each organization shows that at least one member would have individual standing to sue in his or her own right. Ordinarily, for an individual to establish standing, he or she must show injury in fact that can fairly be traced to the challenged action and that is likely to be redressed by a favorable decision (*Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999)). However, it has long been established that an individual satisfies these requirements by showing that his or her residence is within the geographical area that might be affected by an accidental release of fission products. This “proximity approach” to standing presumes that the elements of standing are satisfied if an individual lives within the zone of possible harm from the source of radioactivity. *See Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 56 (1979)

⁴No one disputes that the New Jersey Department of Environmental Protection, which submitted the Petition, is a New Jersey agency that stands in the shoes of the State for purposes of this proceeding. *See* New Jersey Petition at 1.

⁵The NRC Staff agrees that NIRS has representational standing (NRC Staff Answer to NIRS Petition at 7-8). AmerGen disputes NIRS’s standing (AmerGen Answer to NIRS Petition at 8-12).

(“close proximity [to a facility] has always been deemed to be enough, standing alone, to establish the requisite interest” to confer standing); *accord, e.g., Armed Forces Radiobiology Research Institute* (Cobalt-60 Storage Facility), ALAB-682, 16 NRC 150, 153-54 (1982); *Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-183, 7 AEC 222, 224 & n.5 (1974).

The NRC Staff correctly states (NRC Staff Answer to NIRS Petition at 8) that the Commission’s “‘rule of thumb’ in reactor licensing proceedings is that persons who reside . . . within a 50-mile radius . . . of [a reactor plant] are presumed to have standing.” *See Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994). In the instant case, each organization has provided a declaration from at least one member averring that he or she resides within 50 miles of Oyster Creek. *See* NIRS Petition, Declarations. Accordingly, consistent with the Commission’s 50-mile proximity rule for reactor plants, each organization has satisfied the first representational standing requirement by showing that at least one member has individual standing.

The six petitioning organizations also satisfy the second representational standing requirement, because each of the above-mentioned declarations identifies the relevant member’s name, organizational affiliation, and address. *See* NIRS Petition, Declarations.

Finally, the petitioning organizations satisfy the third representational standing requirement, because in each of the above-mentioned declarations, the member authorizes the organization to request a hearing on her or his behalf. Specifically, each declaration states (NIRS Petition, Declarations):

I believe that the application for a license extension of the Oyster Creek nuclear generating station is sufficiently inadequate as written and my interests will not be adequately represented without this action to intervene and without the opportunity of [NIRS] to participate as a full party in this proceeding on my behalf.

Thus, pursuant to settled Commission doctrine, each of the six petitioning organizations appears to have demonstrated representational standing.

AmerGen nevertheless asserts that the Petitioners have not established representational standing, because “there is no recognized proximity presumption applicable to license renewal cases,” and NIRS has “offered [no] basis for [its] apparent assumption that the appropriate radius for such a presumption in this proceeding is 50 miles” (AmerGen Answer to NIRS Petition at 10). We disagree.

First, contrary to AmerGen’s suggestion, the proximity presumption rule has been applied previously by licensing boards in license renewal cases. *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 148-50, *aff’d on other grounds*, CLI-01-17, 54 NRC 3, 26 n.20 (2001); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3),

LBP-98-33, 48 NRC 381, 385 n.1 (1998), *aff'd on other grounds*, CLI-99-11, 49 NRC 328, 333 n.2 (1999).

Nor is there merit to AmerGen's assertion that there is no basis for establishing a 50-mile radius for the proximity presumption rule in a reactor license renewal case. The Commission has stated that the "determination of how proximate a petitioner must live . . . to a source of radioactivity depends on the danger posed by the source at issue" (*Sequoyah Fuels Corp.*, CLI-94-12, 40 NRC at 75 n.22). The radioactive "source" posing the danger in a reactor license renewal case is the identical "source" giving rise to the 50-mile proximity presumption rule for reactor construction permit and operating license proceedings. The Commission has endorsed a 50-mile rule in the latter context (*ibid.*). We agree with NIRS and the NRC Staff that the same 50-mile presumption should apply in reactor license renewal cases. *See Turkey Point*, LBP-01-6, 53 NRC at 148-49 (in reactor license renewal cases, "the distance from the significant source of radioactivity that is presumed to affect the Petitioners logically must be the same 50-mile distance that forms the current basis for the proximity presumption for reactor construction permit and initial operating license proceedings"); *accord Oconee*, LBP-98-33, 48 NRC at 385 n.1.

II. CONTENTION ANALYSIS

A. Legal Standards Governing the Admission of Contentions

To gain party status in an adjudicative proceeding, a petitioner must — in addition to demonstrating standing — submit at least one contention that satisfies the admissibility requirements of 10 C.F.R. § 2.309(f). *See* 10 C.F.R. § 2.309(a). For a contention to be admissible, the petitioner must satisfy the following six regulatory requirements (10 C.F.R. § 2.309(f)(1)):

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the . . . petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the . . . petitioner intends to rely to support its position on the issue; and
- (vi) Provide sufficient information to show that a genuine dispute exists with the . . . licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's

environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

These contention requirements are "strict by design" (*Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001)). A contention that fails to comply with any of these requirements will not be admitted for litigation (*Private Fuel Storage*, CLI-99-10, 49 NRC at 325; Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004)).

Moreover, the scope of a license renewal proceeding is cabined by 10 C.F.R. Part 54. See *Turkey Point*, CLI-01-17, 54 NRC at 6-13; Nuclear Power Plant License Renewal, 60 Fed. Reg. 22,461 (May 8, 1995). In particular, issues relating to a plant's "current licensing basis" are ordinarily beyond the scope of a license renewal review, because "those issues already [are] monitored, reviewed, and commonly resolved as needed by ongoing regulatory oversight" (*Turkey Point*, CLI-01-17, 54 NRC at 8). The term "current licensing basis" is defined as (10 C.F.R. § 54.3(a)):

the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. The [current licensing basis] includes the NRC regulations contained in 10 CFR parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 54, 55, 70, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant-specific design-basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) . . . and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.

The scope of the NRC's public health and safety review in the context of a license renewal proceeding ordinarily is limited to "a review of the plant structures and components that will require an *aging* management review for the period of extended operation and the plant's systems, structures, and components that are subject to an evaluation of time-limited *aging* analyses" (*Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 363-64 (2002) (quoting *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 212 (2001)). See also *Turkey Point*, CLI-01-17, 54

NRC at 10 (license renewal reviews focus “ ‘on plant systems, structures, and components for which current [regulatory] activities and requirements may not be sufficient to manage the effects of aging in the period of extended operation’ ”) (emphasis omitted) (quoting 60 Fed. Reg. at 22,469).

The scope of the NRC’s environmental review in the context of a license renewal proceeding is limited by 10 C.F.R. Part 51 and by the NRC’s NUREG-1437, “Generic Environmental Impact Statement for License Renewal of Nuclear Plants” (May 1996) (hereinafter NUREG-1437). The Commission has determined that a number of environmental issues that might otherwise be relevant to license renewal shall be resolved generically for all plants, and such issues — which are classified in 10 C.F.R. Part 51, Subpart A, Appendix B as “Category 1” issues — are normally “beyond the scope of a license renewal hearing” (*Turkey Point*, CLI-01-17, 54 NRC at 15; see 10 C.F.R. § 51.53(c)(3)(i)). The remaining issues in Appendix B, which are designated as “Category 2” issues, are issues for which (1) the applicant must make a plant-specific analysis of environmental impacts in its Environmental Report (10 C.F.R. § 51.53(c)(3)(ii)), and (2) the NRC Staff must prepare a supplemental Environmental Impact Statement (*id.* § 51.95(c)). Contentions implicating Category 2 issues ordinarily are deemed to be within the scope of license renewal proceedings. See *Turkey Point*, CLI-01-17, 54 NRC at 11-13.

B. New Jersey’s Contentions Are Not Admitted

1. New Jersey’s Contention Regarding Severe Accident Mitigation Alternatives Is Not Admissible

Pursuant to the requirements in 10 C.F.R. Part 51 — which embodies the Commission regulations implementing section 102(2) of the National Environmental Policy Act (NEPA) — AmerGen’s License Renewal Application provided an analysis of severe accident mitigation alternatives (SAMAs) for Oyster Creek (10 C.F.R. § 51.53(c)(3)(ii)(L)).⁶ See AmerGen Answer to New Jersey Petition at 12 (explaining that Appendix F to AmerGen’s Environmental Report contains a 280-page, site-specific SAMA analysis that identifies accident-initiating events and considers 138 mitigating alternatives).

⁶ A SAMA review is a cost-benefit assessment that is conducted to ensure that “plant changes — in hardware, procedures, or training — that have a potential for significantly improving severe accident safety performance are identified and assessed. If the cost of implementing a particular SAMA is greater than its associated benefit, the SAMA would not be considered cost-beneficial” (*Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 5 (2002)).

New Jersey contends that AmerGen's SAMA analysis is deficient, because (New Jersey Petition at 2-5): (1) it fails to consider the plant's vulnerability to aircraft attacks; (2) it fails to consider the plant's spent fuel pool vulnerability; and (3) it is incomplete because it is based on interim measures (rather than long-term measures) that Oyster Creek has implemented to improve the site's emergency response capabilities.

For the reasons discussed below, we agree with AmerGen and the NRC Staff that New Jersey's SAMA-related contention is not admissible. *See* AmerGen Answer to New Jersey Petition at 11-18; NRC Staff Answer to New Jersey Petition at 6-14.⁷

a. Aircraft Attacks

New Jersey asserts that the SAMA analysis for Oyster Creek is deficient because it improperly fails to consider an "aircraft attack" scenario (New Jersey Petition at 4). We reject this SAMA-related contention as outside the scope of (10 C.F.R. § 2.309(f)(1)(iii)), and not material to (*id.* § 2.309(f)(1)(iv)), this proceeding. *See* AmerGen Answer to New Jersey Petition at 12-14; NRC Staff Answer to New Jersey Petition at 6-10.

The Commission repeatedly and unequivocally has ruled that the effects of terrorist attacks need not be considered under NEPA. *See, e.g., Dominion Nuclear Connecticut, Inc.* (Millstone Power Station, Unit 3), CLI-02-27, 56 NRC 367 (2002); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335 (2002). As the Commission explained in *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 349 (2002) (quotation marks and footnotes omitted):

Courts have excluded [from NEPA-mandated review] impacts with either a low probability of occurrence, or where the link between the agency action and the claimed impact is too attenuated to find the proposed federal action to be the proximate cause. . . . Here, the possibility of a terrorist attack . . . is speculative and simply too far removed from the natural or expected consequences of agency action to require a study under NEPA.

⁷New Jersey failed to submit a reply brief. Accordingly, it is foreclosed from challenging the assertions advanced by AmerGen and the NRC Staff in their answers, unless it put such assertions in issue in its Petition or Supplemental Briefs. *See Blackwell v. Cole Taylor Bank*, 152 F.3d 666, 673 (7th Cir. 1998) ("silence about facts . . . constitute[s] a waiver of the specific factual contentions made by the opposing party in a brief filed earlier"); *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 334-35 (1973) (Licensing Board is authorized to accept assertions of the applicant and Staff that have not been controverted by a party).

Accord McGuire/Catawba, CLI-02-26, 56 NRC at 365 (“NEPA imposes no legal duty on the NRC to consider intentional malevolent acts, such as the [September 11, 2001 terrorist attacks], on a case-by-case basis in conjunction with commercial power reactor license renewal applications”).

Accordingly, New Jersey’s contention that Oyster Creek’s SAMA analysis must address the impacts of aircraft attacks is “beyond the scope of, not ‘material’ to, and inadmissible in, [this] license renewal proceeding” (*McGuire/Catawba*, CLI-02-26, 56 NRC at 364).⁸

b. Spent Fuel Pool Vulnerability

New Jersey asserts that the SAMA analysis for Oyster Creek is deficient because it fails to consider the vulnerability of the spent fuel pool (New Jersey Petition at 4-5). For two reasons, we reject this contention as outside the scope of this proceeding (10 C.F.R. § 2.309(f)(1)(iii)). See AmerGen Answer to New Jersey Petition at 14-15; NRC Staff Answer to New Jersey Petition at 10-13.

First, to the extent that New Jersey challenges AmerGen’s SAMA analysis for failing to consider the vulnerability of the spent fuel pool to attacks, the contention is — for the reasons discussed *supra* Part II.B.1.a — “beyond the scope of, not ‘material’ to, and inadmissible in, [this] license renewal proceeding” (*McGuire/Catawba*, CLI-02-26, 56 NRC at 364).

Second, to the extent that New Jersey challenges AmerGen’s SAMA analysis for failing to “look at design basis accidents for spent fuel pools” (New Jersey Petition at 4-5), the contention is likewise inadmissible. As discussed *supra* p. 199, a number of environmental issues — identified as Category 1 issues — have been resolved generically for all plants, and SAMA-related contentions based on such issues are beyond the scope of a license renewal hearing (10 C.F.R. § 51.53(c)(3)(i)). The regulations designate “[o]n-site spent fuel” as a

⁸ We emphasize that the Commission scrupulously examines terrorist-related security issues outside the NEPA context. See, e.g., *Private Fuel Storage*, CLI-02-25, 56 NRC at 343 (Commission stresses its “determination, in the wake of the horrific September 11th terrorist attacks, to strengthen security at [NRC-regulated] facilities. . . . [Our] review process is ongoing and cumulative. It already has resulted in a number of security-related actions to address terrorism threats at both active and defunct nuclear facilities.”). Nevertheless, for the reasons explained above in text, terrorist acts are outside the required purview of NEPA, and security-related issues related to such acts “are simply not among the aging-related questions at stake in a license renewal proceeding” (*Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 638 (2004)).

In the Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437, the NRC Staff performed a discretionary analysis of terrorist acts in connection with license renewal, and it concluded that the core damage and radiological release from such acts would be no worse than the damage and release to be expected from internally initiated events. See *McGuire/Catawba*, CLI-02-26, 56 NRC at 365 n.24; see also NUREG-1437, Vol. 1, at p. 5-18.

Category 1 issue, stating that the “expected increase in the volume of spent fuel from an additional 20 years of operation can be safely accommodated on site with small environmental effects through dry or pool storage at all plants if a permanent repository or monitored retrievable storage is not available” (10 C.F.R. Part 51, Subpart A, App. B). Because onsite spent fuel is a Category 1 issue, New Jersey’s contention challenging AmerGen’s SAMA analysis for failing to consider Oyster Creek’s spent fuel pool is beyond the scope of this proceeding and, thus, not admissible. See *Turkey Point*, CLI-01-17, 54 NRC at 15, 20-24; *Oconee*, CLI-99-11, 49 NRC at 343-44.⁹

New Jersey also makes the corollary request that State officials with “sufficient clearance” be granted access to nonpublic security information related to Oyster Creek’s “ability to withstand aircraft attacks, as well as the specific vulnerability of the spent fuel pool” (New Jersey Petition at 6). However, as we have concluded (*supra* Parts II.B.1.a & b), New Jersey’s SAMA-related contention is not admissible whether it is based on aircraft attacks or the spent fuel pool. That conclusion would not change if New Jersey were granted access to the requested information. Thus, even assuming *arguendo* that New Jersey had complied with the Commission’s procedural requirements for obtaining nonpublic information (*but see* 70 Fed. Reg. at 54,586 n.1 (directing petitioners to contact applicant for access to nonpublic information)), we conclude that — for purposes of this proceeding — New Jersey has not demonstrated a need for the requested information.

⁹ New Jersey opines that spent fuel accidents should be considered in the SAMA analysis, because such accidents “are part of the licensee’s and state emergency preparedness programs” (New Jersey Petition at 5). But, as the NRC Staff correctly responds, “emergency preparedness programs are evaluated on a continuing basis and, therefore, are outside the scope of license renewal” (NRC Staff Answer to New Jersey Petition at 10). Moreover, New Jersey has recourse if it wishes to challenge, or raise concerns about, Oyster Creek’s emergency preparedness program relating to spent fuel accidents. Namely, it may petition for enforcement action (10 C.F.R. § 2.206), or it may petition for rulemaking (*id.* § 2.802).

The NRC Staff erroneously states (NRC Staff Answer to New Jersey Petition at 11) that New Jersey’s contention regarding spent fuel pool vulnerability appears to raise an impermissible attack on the Commission’s Waste Confidence Rule, in which the Commission found that, if necessary, “spent fuel generated in any reactor can be stored [onsite] safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation” (10 C.F.R. § 51.23(a)). As the Staff should know, this argument is precluded by the decision in *Turkey Point*, where the Staff made an identical argument, and the Commission squarely rejected it (CLI-01-17, 54 NRC at 23 n.14). *Cf.* 10 C.F.R. § 2.323(d) (“[a]ll parties are obligated, in their filings . . . , to ensure that their arguments . . . are supported by . . . legal authority”).

c. *Long-Term Compensatory Measures*

In 10 C.F.R. § 73.1(a)(1)(i), the design basis threat (DBT) for which a facility must have appropriate security measures includes a “violent external assault, attack by stealth, or deceptive actions, of several persons” who are well-trained, possess explosives and sophisticated weapons, and utilize a four-wheel-drive vehicle. New Jersey observes that AmerGen — in response to a revised DBT imposed by the Commission following the terrorist attacks of September 11, 2001 — has implemented “interim compensatory measures” (New Jersey Petition at 4-5). Before Oyster Creek may operate under a renewed license, asserts New Jersey, AmerGen must implement “long-term measures rather than interim compensatory measures . . . to ensure that all SAMA have been evaluated” (*id.* at 5). We reject this aspect of New Jersey’s SAMA-related contention, because it is neither within the scope of, nor material to, this proceeding (10 C.F.R. § 2.309(f)(1)(iii) & (iv)).

As AmerGen acknowledges (AmerGen Answer to New Jersey Petition at 15), in 2003, the Commission issued orders requiring nuclear power plant licensees, including AmerGen, to implement interim compensatory security measures to address the revised DBT. *See All Operating Power Reactor Licensees; Order, Modifying License (Effective Immediately)*, 68 Fed. Reg. 24,517 (May 7, 2003). In 2005, the Commission initiated a rulemaking to codify the security requirements pertaining to the revised DBT. *See Design Basis Threat*, 70 Fed. Reg. 67,380 (Nov. 7, 2005). Among other things, the proposed rule would “make generically applicable the security requirements previously imposed by the Commission’s [prior] DBT orders” (70 Fed. Reg. at 67,380).

Agencies generally are free to exercise their discretion in determining whether to formulate policy through rulemaking or adjudication (*Heckler v. Campbell*, 461 U.S. 458, 467 (1983)). In the instant case, the Commission has chosen to address security requirements for the revised DBT generically through rulemaking, rather than on a license-by-license basis. That rulemaking procedure remains ongoing. *See* 70 Fed. Reg. at 67,380 (directing submission of public comments to proposed rule by January 23, 2006).

Where, as here, the Commission has initiated rulemaking proceedings that apply to the facility in question and that directly implicate a proposed contention, a Board ordinarily should refrain from admitting that contention. *See Oconee*, CLI-99-11, 49 NRC at 345 (licensing boards “ ‘should not accept in individual license proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission’ ”) (quoting *Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85 (1974)). Because New Jersey has presented no reason for departing from

this precept, we conclude that its contention is outside the scope of, not material to, and thus inadmissible in this proceeding.¹⁰

The NRC Staff also notes that New Jersey fails adequately to explain its assertion that “[l]ong-term measures rather than interim compensatory measures must be in place” in order to “ensure that all SAMA have been evaluated” (NRC Staff Answer to New Jersey Petition at 7 n.8 (quoting New Jersey Petition at 5)). In particular, argues the Staff, New Jersey’s claim (1) is vague and ill-defined, (2) fails to specify a NEPA requirement in support of its contention, and (3) fails to identify any section of the License Renewal Application in support of its contention (NRC Staff Answer to New Jersey Petition at 6-7). We agree and thus conclude that New Jersey’s contention, in addition to being outside the scope of this proceeding and lacking materiality, is “lacking proper basis, specificity, . . . and support, and does not establish a genuine dispute on a material issue of law or fact” (*id.* at 7 n.8).

2. New Jersey’s Contention Regarding Metal Fatigue Is Not Admissible

In its Petition (New Jersey Petition at 6-9), New Jersey attacks AmerGen’s use of a cumulative usage factor (CUF)¹¹ of 1.0 in its License Renewal Application for evaluating the metal fatigue of reactor coolant pressure boundary components at Oyster Creek during the renewal period. New Jersey contends that, pursuant to 10 C.F.R. § 50.55a(c)(4), AmerGen must use the more restrictive CUF of 0.8, as “specified by the [standards in the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (“ASME Code”)] that were required by Commission regulations at the time of issuance of the construction permit” (New Jersey Petition at 6). Moreover, contends New Jersey, AmerGen’s use of a CUF of 1.0 places Oyster Creek outside its current licensing basis (CLB, which is defined *supra* p. 198) and in violation of 10 C.F.R. § 54.21(a)(3), because it fails to “demonstrate that the effects of aging will be adequately managed so that the intended function(s) will be maintained consistent with the CLB for the period of extended operation” (New Jersey Petition at 6) (quoting 10 C.F.R. § 54.21(a)(3)).

¹⁰ Any attempt by New Jersey to challenge the Commission’s discretionary decision to use rulemaking to codify security requirements pertaining to the revised DBT would be beyond the scope of this proceeding in any event. If New Jersey wishes to challenge particular aspects of the proposed rule, its “remedy lies in the rulemaking process, not in this adjudication” (*Ocone*, CLI-99-11, 49 NRC at 345).

¹¹ The CUF assists in describing the level of a component’s cumulative fatigue damage — that is, damage caused by the repeated stresses of operating load cycles during the component’s operating life. *See* AmerGen Answer to New Jersey Petition at 18 n.9.

AmerGen and the NRC Staff argue that New Jersey's contention misapprehends the governing regulations and, accordingly, is inadmissible for lack of supporting law and facts (10 C.F.R. § 2.309(f)(1)(v)), and for failure to show the existence of a genuine dispute on a material issue (*id.* § 2.309(f)(1)(vi)). See AmerGen Answer to New Jersey Petition at 18-23; NRC Staff Answer to New Jersey Petition at 14-17; *see also* AmerGen Second Supp. Brief at 2-5; NRC Staff Second Supp. Brief at 1-5. We agree that this contention is not admissible.

As relevant here, standards for the maintenance of components of the reactor coolant pressure boundary for boiling water-cooled nuclear power facilities, such as Oyster Creek, are governed by 10 C.F.R. § 50.55a(c). Section 50.55a(c)(1) provides that these components must meet the requirements for Class 1 components in section III of the current ASME Code. However, section 50.55a(c)(4) states that for operating plants whose construction permits were issued prior to May 14, 1984, the applicable ASME Code requirements are those "for such components at the time of issuance of the construction permit" (10 C.F.R. § 50.55a(c)(4)).

New Jersey argues that AmerGen's License Renewal Application — which provides for a CUF of 1.0 — violates section 50.55a(c)(4), because Oyster Creek's construction permit was issued prior to May 14, 1984,¹² and AmerGen must therefore evaluate the fatigue level of the reactor coolant pressure boundary components throughout the period of extended operation using the more restrictive CUF of 0.8, which was the standard required by the ASME Code in effect at the time Oyster Creek's permit was issued (New Jersey Petition at 6). We reject this argument. First, it appears that New Jersey has abandoned this argument, because in a supplemental brief, it explicitly acknowledged that 10 C.F.R. § 50.55a "provide[s] AmerGen with the opportunity to update" its CUF from 0.8 to 1.0 (New Jersey Second Supp. Brief at 4). In any event, even if New Jersey had not elected to abandon this argument, we would conclude that it lacks merit, because section 50.55a(c)(4) does *not* impose an inexorable requirement that AmerGen forever use the standards embodied in the ASME Code in effect at the time its construction permit was issued. Rather, the regulations allow an operating plant in Oyster Creek's situation to choose whether to use the standards in the original ASME Code or to voluntarily update to a later permissible version. As the Commission explained: "For operating plants, § 50.55a permits licensees to use the original construction code during the operational phase or voluntarily update to a later version which has been endorsed by 10 C.F.R. § 50.55a" (Industry Codes and Standards; Amended Requirements, 64 Fed. Reg. 51,370, 51,381 (Sept. 22, 1999)). The regulations thus provide Oyster Creek with the option of

¹²Oyster Creek's construction permit was issued in December 1964. See AmerGen Answer to New Jersey Petition at 18.

applying the original ASME Code or voluntarily updating to a later version of the ASME Code that has been endorsed by section 50.55a.

Although AmerGen currently uses a CUF of 0.8 for Oyster Creek's reactor coolant pressure boundary components (AmerGen Answer to New Jersey Petition at 22-23), AmerGen indicated in its License Renewal Application that it will revise its CLB to reflect a CUF of 1.0 (AmerGen Answer to New Jersey Petition, Exh. 1, Letter from C.N. Swenson, Oyster Creek Generating Station, to U.S. Nuclear Regulatory Commission (Dec. 9, 2005)). Utilizing a CUF of 1.0 is permitted under the current, relevant portion of the ASME Code, which states that "[t]he reactor coolant system or primary pressure boundary component is acceptable for continued service throughout the evaluation period if the CUF . . . is less than or equal to 1.0" (AmerGen Answer to New Jersey Petition, Exh. 3, ASME Code, Section XI, Appendix L, ¶L-2220). Moreover, that portion of the Code is specifically referenced in, and endorsed by, 10 C.F.R. § 50.55a(g)(4). *See also* 64 Fed. Reg. at 51,386 (Commission expresses approval of Appendix L of ASME Code for "demonstrat[ing] that a component is acceptable with regard to cumulative fatigue effects"). Thus, New Jersey's contention that AmerGen is proscribed from using the updated, less restrictive CUF of 1.0 during the period of extended operation is inadmissible, because — aside from being abandoned — it is wholly unsupported as a matter of law or fact, and it fails to show the existence of a genuine dispute regarding a material issue.¹³

New Jersey nevertheless contends (New Jersey Petition at 7) that the CUF in Oyster Creek's now-effective CLB is 0.8, and AmerGen's use of a CUF of 1.0 in its License Renewal Application allegedly places Oyster Creek outside its present CLB, in violation of Commission regulations which require AmerGen's application to "demonstrate that . . . the intended function(s) [of the relevant components] will be maintained consistent with the CLB for the period of extended operation" (10 C.F.R. § 54.21(a)(3)). But as AmerGen and the NRC Staff observe (AmerGen Second Supp. Brief at 2; NRC Staff Second Supp. Brief at 2), section 54.21(a)(3) does not require AmerGen's application to use the CUF in its now-effective CLB during extended operations; it simply requires AmerGen to "demonstrate" that the intended functions of the relevant components will be maintained consistent with the "CLB for the period of extended operation" (10 C.F.R. § 54.21(a)(3)). AmerGen made such a demonstration in its application and related correspondence when, in December 2005, it docketed with the NRC Staff its commitment to "revise [prior to the period of extended operation] the Oyster Creek [Updated Final Safety Analysis Report] to update the [CLB] to reflect that a [CUF] of 1.0 will be used in fatigue analysis for reactor coolant

¹³New Jersey's contention is also inadmissible for lack of an adequate basis (10 C.F.R. § 2.309(f)(1)(ii)).

pressure boundary components’’ (AmerGen Exh. 1, at 3).¹⁴ We conclude that, as a matter of law and fact, AmerGen’s docketed commitment satisfies its regulatory obligation under section 54.21(a)(3). Accordingly, New Jersey’s contention that AmerGen’s License Renewal Application violates section 54.21(a)(3) is inadmissible, because it is unsupported as a matter of law or fact (10 C.F.R. § 2.309(f)(1)(v)), and fails to show the existence of a genuine dispute regarding a material issue (*id.* § 2.309(f)(1)(vi)).¹⁵

3. New Jersey’s Contention Regarding the Combustion Turbines Is Not Admissible

Pursuant to 10 C.F.R. § 50.63, AmerGen must have an alternate source of alternating current (AC) power for Oyster Creek in the event of a station blackout (SBO). AmerGen relies on the Forked River combustion turbines (FRCTs) to satisfy this regulatory requirement. Although the FRCTs are located on AmerGen property, they are owned, operated, and maintained by another company, First Energy, via an Interconnection Agreement between the two companies. New Jersey argues that the contractual “arrangement with First Energy proposed in the [License Renewal Application] does not demonstrate that AmerGen will ensure that the [FRCTs] will continue to perform their intended function for the period of extended operation’’ (New Jersey Petition at 10). Specifically, New Jersey contends that AmerGen’s arrangement improperly fails to assure that (*id.* at 9): (1) First Energy will continue to operate the FRCTs during the extended period of operation; (2) the FRCTs will be maintained, inspected, and tested in accordance with AmerGen’s aging management plan; and (3) all deficiencies encountered by First Energy in the course of operating, maintaining, and testing the FRCTs will

¹⁴ Such changes to a facility’s CLB during the license renewal review process are expressly permitted by Commission regulations (10 C.F.R. § 54.21(b)). We decline New Jersey’s invitation to impute to AmerGen an intention to act in derogation of its formal commitment to the NRC Staff. *See Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19, 29 (2003) (Commission has “long declined to assume that licensees will refuse to meet their obligations’’). In any event, because AmerGen’s license-related activities will be subject to the NRC Staff’s continuing regulatory oversight and enforcement authority, New Jersey’s concerns are, as a practical matter, misplaced.

¹⁵ AmerGen’s License Renewal Application treats metal fatigue of the reactor pressure boundary components as a time-limited aging analysis (TLAA) (AmerGen Second Supp. Brief at 2). Applicants must demonstrate that the TLAA’s remain valid or have been projected for the period of extended operation, or that the “effects of aging on the intended function(s) will be adequately managed for the period of extended operation’’ (10 C.F.R. § 54.21(c)(1)(iii)). AmerGen represents, and the NRC Staff agrees, that the analyses for Oyster Creek’s metal fatigue are in compliance with section 54.21(c)(1) (AmerGen Second Supp. Brief at 2-3; NRC Staff Second Supp. Brief at 4). New Jersey’s failure to controvert those representations buttresses our conclusion that its contention is inadmissible under section 2.309(f)(1)(v) and (vi).

be entered into a corrective action program that satisfies the quality assurance requirements of 10 C.F.R. Part 50, Appendix B.

For the reasons discussed below, we agree with AmerGen and the NRC Staff that New Jersey's contention relating to AmerGen's FRCTs is inadmissible. *See* AmerGen Answer to New Jersey Petition at 23-31; NRC Staff Answer to New Jersey Petition at 19-21. *See also* AmerGen First Supp. Brief at 9-12; NRC Staff First Supp. Brief at 8-10.

a. Continued Operation of the FRCTs

First, New Jersey asserts that the Interconnection Agreement between AmerGen and First Energy will not ensure continued operation of the FRCTs during the renewal period. We reject this as a basis for New Jersey's contention, because New Jersey fails to provide any facts or expert opinions in support of its assertion (10 C.F.R. § 2.309(f)(1)(v)).

The NRC Staff approved the Interconnection Agreement, concluding that "AmerGen would be in compliance with the SBO requirements" (AmerGen Answer to New Jersey Petition at 26) (citing Memorandum from Suzanne C. Black, Office of Nuclear Reactor Regulation, to A. Randolph Blough, Division of Reactor Projects, Region I (Nov. 15, 1999)). New Jersey does not contend that contractual agreements (such as the Interconnection Agreement) are prohibited by NRC policy or regulations.¹⁶ Nor does New Jersey challenge the NRC Staff's conclusion that AmerGen's contractual arrangement with First Energy satisfies the SBO requirements. Rather, New Jersey speculates — without any factual or expert support — that First Energy will not fulfill its obligations under the Interconnection Agreement to operate the FRCTs during the extended period of operation, thereby causing AmerGen to be in violation of its regulatory obligations.

It is well established that a contention will be ruled inadmissible where the petitioner has offered "only 'bare assertions and speculation'" (*Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003) (quoting *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000)). It is equally well established that, absent evidence to the contrary, the Commission will not "assume that licensees will contravene our regulations"

¹⁶As AmerGen states, not only does New Jersey fail to cite any "regulatory requirement that prohibits a licensee from relying on another entity to implement all or portions of an aging management program," it also ignores that "NRC license renewal guidance recognizes the adequacy of aging management programs performed by others" (AmerGen Answer to New Jersey Petition at 27) (citing NUREG-1801 (Sept. 2005), NUREG-1723 (Mar. 2000), and NUREG-1769 (Feb. 2003)). The NRC Staff confirms that the substantive obligations of aging management programs may "be met through contracted services" (NRC Staff First Supp. Brief at 9).

(*Oyster Creek*, CLI-00-6, 51 NRC at 207). In disregard of both principles, New Jersey asks this Board to admit a contention that is unsupported by facts or expert opinion, and that is rooted in the baseless assumption that AmerGen will violate Commission regulations. This we will not do.¹⁷

b. Aging Management of the FRCTs

New Jersey also asserts that the Interconnection Agreement is inadequate to assure First Energy will comply with the terms of AmerGen's aging management plan. In particular, New Jersey challenges AmerGen's reliance on First Energy to "manage and perform this work with little opportunity for AmerGen to oversee any of it" (New Jersey Petition at 9). This contention is inadmissible on three grounds: (1) it is unsupported by facts or expert opinions (10 C.F.R. § 2.309(f)(1)(v)); (2) it lacks an adequate basis (*id.* § 2.309(f)(1)(ii)); and (3) it fails to show a genuine issue of disputed material fact or law (*id.* § 2.309(f)(1)(vi)).

First, AmerGen submitted an aging management plan for the FRCTs with its License Renewal Application as well as in its response to the NRC Staff's Request for Additional Information (AmerGen Answer to New Jersey Petition at 27; NRC Staff Answer to New Jersey Petition at 21). AmerGen states that the terms of the Interconnection Agreement afford it "sufficient opportunity to ensure that First Energy performs its activities, both during the current term and continuing into the extended term of operation" (AmerGen Answer to New Jersey Petition at 27). The NRC Staff confirms that AmerGen's aging management plan "will ensure that the FRCTs are adequately managed for the period of extended operation" (NRC Staff Answer to New Jersey Petition at 21). New Jersey does not dispute AmerGen's representation that it has ample opportunity under the Interconnection Agreement to oversee First Energy's activities regarding the FRCTs. Nor does New Jersey dispute the NRC Staff's representation that AmerGen's aging management plan will ensure the FRCTs are adequately managed during the renewal period. Furthermore, New Jersey advances no legal basis to dispute the propriety of AmerGen entrusting aging management of the FRCTs to First Energy (*supra* note 16). Rather, New Jersey simply postulates that First Energy may fail to implement the aging management plan prescribed by AmerGen, thereby resulting in a violation of NRC regulations. As discussed above (*supra* Part II.B.3.a), sheer speculation of this type is wholly inadequate to support a contention, which must be based on supporting facts or expert opinions (10 C.F.R. § 2.309(f)(1)(v)).

¹⁷To the extent New Jersey attacks AmerGen's use of the Interconnection Agreement as part of Oyster Creek's current licensing basis, such a challenge is outside the scope of this proceeding (10 C.F.R. § 2.309(f)(1)(iii)), which is limited to issues relating to the aging of plant systems, structures, or components. See AmerGen Answer to New Jersey Petition at 26-27; NRC Staff Answer to New Jersey Petition at 20.

Moreover, we reject New Jersey's contention for the alternative, but related, reasons that: (1) the contention lacks an adequate basis (10 C.F.R. § 2.309(f)(1)(ii)), because New Jersey failed to provide supporting information and references to specific documents or sources that establish the validity of the contention (*Turkey Point*, CLI-01-17, 54 NRC at 19-20); and (2) the contention fails to show the existence of a genuine dispute on a material issue of law or fact (10 C.F.R. § 2.309(f)(1)(vi)), because New Jersey neither challenges any provision in the aging management plan, nor raises a legal challenge to the legitimacy of AmerGen's reliance on First Energy to implement the aging management program. *See* NRC Staff Answer to New Jersey Petition at 20-21; AmerGen First Supp. Brief at 10.¹⁸

c. Corrective Action Program for the FRCTs

Finally, New Jersey contends that AmerGen's contractual arrangement with First Energy relating to the FRCTs is deficient, because if First Energy encounters problems while operating, maintaining, and testing the FRCTs, it may not enter them into a corrective action program that meets the requirements of 10 C.F.R. Part 50, Appendix B (New Jersey Petition at 9). Once again, however, New Jersey fails to provide either facts or expert opinions in support of its assertion. This contention is, therefore, inadmissible (10 C.F.R. § 2.309(f)(1)(v)).

Moreover, this contention is inadmissible for two additional reasons. AmerGen avers (AmerGen Answer to New Jersey Petition at 28-29) that Commission regulations do not require that combustion turbine aging management programs comply with Appendix B. The NRC Staff has accepted the approach outlined by AmerGen in its License Renewal Application, which provides that First Energy will comply with prescribed portions of NRC Regulatory Guide 1.155 and NUMARC 87-00, both of which provide criteria to meet the SBO requirement (AmerGen Answer to New Jersey Petition at 29). New Jersey's contention — which fails to dispute AmerGen's assertion that Part 50, Appendix B need not be followed, and which fails to explain why the actions described in AmerGen's application are inadequate — is thus inadmissible because it (1) fails to provide

¹⁸It is ultimately AmerGen's regulatory obligation to ensure that (1) the FRCTs are operational throughout the period of extended operation (10 C.F.R. § 50.63), and (2) the effects of aging are adequately managed (*id.* § 54.21(a)). As we stated *supra* pp. 208-09, we are unwilling, on this record, to assume that AmerGen will fail to comply with its lawful obligations. Of course, in the event that the FRCTs become unavailable, or if AmerGen fails to ensure that its aging management plan is properly implemented, the "Staff would consider, in either instance, taking appropriate enforcement or other regulatory action against [AmerGen], as it would against any licensee for a violation of the Commission's regulations or the conditions of the license" (NRC Staff First Supp. Brief at 10; *see also* AmerGen First Supp. Brief at 11-12).

an adequate basis (10 C.F.R. § 2.309(f)(1)(ii)), and (2) fails to show that a genuine dispute exists on a material issue of law or fact (*id.* § 2.309(f)(1)(vi)). *See* NRC Staff Answer to New Jersey Petition at 20-21; AmerGen Answer to New Jersey Petition at 28-31.¹⁹

In sum, New Jersey fails to proffer a contention that satisfies the admissibility requirements of 10 C.F.R. § 2.309(f)(1). We are therefore constrained to deny its Request for Hearing and Petition To Intervene.

C. NIRS’s Contention Regarding the Drywell Liner, as Narrowed by the Board, Is Admitted

NIRS seeks to litigate the following (NIRS Petition at 3):

[NIRS] contend[s] that as part of this licensing proceeding that [AmerGen] be required to conduct an adequate number of confirmatory UT [ultrasonic testing] measurements using state of the art equipment at *all* levels of the drywell liner, including multiple measurements at the area formerly known as the “sand bed region” . . . to determine the actual remaining wall thickness of the vitally important containment component . . . [and] that the UT measurements be taken periodically for the life of the reactor . . . to confirm that the actual corrosion measurements are as projected and that additional UT measurements be greatly expanded into areas not previously inspected.

Accompanying NIRS’s proposed contention is a memorandum from Dr. Rudolph Hausler, who states that, in his opinion, visual inspections of previously corroded areas in the sand bed region that have been covered with an epoxy coating are not adequate to ensure that the “coating prevented additional corrosion [and that] the structure is still safe enough to be certified for an additional 20 years of operation” (NIRS Petition, Memorandum from Dr. Rudolf H. Hausler, Corro-Consulta, to Paul Gunter, [NIRS,] at 1 (Nov. 10, 2005) [hereinafter Dr. Hausler Memo]).

AmerGen and the NRC Staff argue that this contention is not admissible, because it fails to raise a genuine issue of material law or fact, lacks proper basis and support, and fails to provide a corroborating expert opinion. *See* AmerGen Answer to NIRS Petition at 23-31; NRC Staff Answer to NIRS Petition at 14-17.

For the reasons discussed below, we conclude that NIRS’s contention — as narrowed by this Board to challenge only the aging management program for

¹⁹To the extent that New Jersey’s contention may be characterized as raising a question related to a putative need for current corrective action regarding the FRCTs, it fails to address the issue of aging management and is, therefore, outside the scope of this proceeding (*id.* § 2.309(f)(1)(iii)). *See* NRC Staff Answer to New Jersey Petition at 20.

corrosion in the sand bed region of the drywell liner (*infra* p. 217) — satisfies the requirements of 10 C.F.R. § 2.309(f)(1) and, accordingly, is admitted.

Preliminarily, we discuss the relevant history of Oyster Creek’s drywell liner, because that history provides the factual backdrop for our admissibility analysis.

1. Background: The Severe Corrosion in the Sand Bed Region of the Drywell Liner, and the Licensee’s Commitment To Take Ultrasonic Test Measurements of the Liner for the Life of the Plant

The drywell liner²⁰ is a safety structure that is maintained “both as a pressure-related boundary and for structural support” (NIRS Petition at 4). It is designed “to contain and control the release of fission products to the reactor building in the event of a Design Basis Accident including a Loss-Of-Coolant-Accident . . . so that the offsite radiation dose consequences to surrounding populations would be within the postulated acceptable limits” (*ibid.*).

The liner itself is a steel pressure vessel in the shape of an inverted lightbulb that is about 100 feet tall and varies in design thickness from 1.154 inches in the 70-foot spherical base to 0.64 inch in the 30-foot upper cylinder region (AmerGen Answer to NIRS Petition at 19; NIRS Petition, Exh. 4, Office of Nuclear Reactor Regulation, Summary of May 5, 1993 Meeting with GPU Nuclear Corp., Encl. 2, at 7 (May 17, 1993)). The spherical section is partially embedded in reinforced concrete up to about the 9-foot level. The non-embedded portion of the drywell liner is enclosed by a reinforced concrete shield wall, separated by an annulus of 3 inches that allows for expansion of the drywell liner during reactor operation (NIRS Petition at 4). The area outside the lower portion of the spherical region — extending from about the 9-foot level to the 13-foot level — is known as the “sand bed region” of the drywell liner, because it originally was filled with sand, which acted as a cushion and allowed expansion (AmerGen Answer to NIRS Petition at 19; NIRS Petition, Exh. 1, Office of Inspection and Enforcement Information Notice 86-99: Degradation of Steel Containments at 2 (Dec. 8, 1986)).

About 20 years ago, Oyster Creek’s then-licensee identified corrosion on the outside of the drywell liner, finding the most severe corrosion in the sand bed region (AmerGen Answer to NIRS Petition at 19). The corrosion apparently was caused by water that entered the annulus between the liner and the concrete shield wall, which accumulated at a rate from between “a few drops to 2 gallons per

²⁰ Although the “drywell liner” is also commonly referred to as the “drywell shell” (AmerGen Answer to NIRS Petition at 22 n.11), we will use the former term here.

minute, depending[, respectively,] on whether the unit was in operation or an outage for refueling’’ (NIRS Petition, Exh. 1, at 1).²¹

In 1986, the then-licensee used an ultrasonic testing (UT) technique at two elevations of the drywell liner — 11 feet (in the sand bed region), and 51 feet — to determine the extent of the damage caused by the corrosion (*ibid.*). The UT measurements taken at the 51-foot level did not reveal significant damage; however, of the 143 UT measurements taken in the sand bed region at the 11-foot level, 60 measurements indicated a reduction of more than 1/4 inch from its design thickness of 1.154 inches (*ibid.*).

In 1991, the NRC Staff issued an Information Notice to reactor licensees that provided information — based on the experience at Oyster Creek — about the potential for drywell liner degradation and possible ways to avoid or mitigate such problems (NIRS Petition, Exh. 2, Office of Nuclear Reactor Regulation, Information Notice No. 86-99, Supp. 1: Degradation of Steel Containments (Feb. 14, 1991)). In the Information Notice, the NRC Staff stated that the then-licensee at Oyster Creek had “instituted periodic wall thickness measurements by the [UT] technique to determine corrosion rates. The most severe corrosion was found in the sand bed region at a nominal elevation of [11 feet, 3 inches]’’ (*id.* at 1). The Staff advised that in 1989, which was about 3 years after the corrosion had been discovered, the licensee had installed cathodic protection in the sand bed areas where the drywell liner exhibited the greatest damage, but “[s]ubsequent UT thickness measurement in these [areas] indicated that [cathodic protection] was ineffective’’ (*ibid.*). In other words, subsequent to 1989, the corrosion in the sand bed region had not been arrested. The NRC Staff also advised that the spherical portion of the drywell liner experienced some corrosion at the 51-foot level, and some corrosion was also discovered in the cylindrical portion of the liner at the 87-foot level. The latter corrosion was thought to have originated mostly during construction, and although no significant wall thinning was detected, “this is the region in which the nominal thickness of the wall has the least margin, thus requiring periodic monitoring of actual thickness’’ (*id.* at 2).

In 1992, the NRC Staff conducted a safety evaluation of the structural integrity of Oyster Creek’s drywell liner (NIRS Petition, Exh. 3, Office of Nuclear Reactor Regulation, Safety Evaluation of Oyster Creek Nuclear Generating Station; Drywell Structural Integrity (Apr. 24, 1992)). The Staff concluded that the drywell liner, at that time, satisfied the structural integrity requirements. The Staff nevertheless stated (*id.* at 5) (emphasis added):

²¹ In 1986, the then-licensee — in its effort to identify and eliminate the water problem — repaired a seal and replaced a gasket at the bellows, which is located at the top of the drywell liner. This corrective action allegedly stopped the leakage during the unit’s outage for refueling. The region above the bellows is flooded during refueling, which explained why leakage was high during refueling and low during operation. See NIRS Petition, Exh. 1, at 1.

[I]t is essential that the licensee perform UT thickness measurements at refueling outages and at outages of opportunity for the life of the plant. The measurements should cover not only areas previously inspected but also accessible areas which have never been inspected so as to confirm that the thicknesses of the corroded areas are as projected and the corroded areas are localized.

In May 1993, the then-licensee at Oyster Creek met with the NRC Staff and discussed the status of its drywell corrosion mitigation program. See NIRS Petition, Exh. 4. The licensee reported that during the most recent refueling outage — from November 1992 to February 1993 — Oyster Creek permanently removed all the sand from the sand bed region, cleaned the rust and scale from the drywell liner in that region, and applied a protective epoxy coating to the corroded areas of the drywell liner in that region (*id.* at 1-2).²² According to the licensee, a visual inspection of the drywell liner conducted from the ten access bays surrounding the liner revealed severe corrosion in the shape of a “bathtub ring” in each bay, which the licensee described as “an 8 to 18 inch wide band” about “30 to 40 inches long . . . containing heavily corroded areas” (NIRS Petition, Exh. 4, Encl. 2, at 8). The so-called “bathtub ring” of corrosion was “believed to be the air-water interface when [the] sand bed was saturated with water” (*ibid.*). The visual inspection showed no corrosion above the ring, but there was “uniform corrosion” below and laterally beyond the ring (*ibid.*). This inspection confirmed that the most serious corrosion on the drywell liner occurred in the sand bed region (*id.* at 13).²³

Moreover, during the May 1993 meeting with the NRC Staff, the then-licensee provided the Staff with a summary and evaluation of the most recent UT measurements (NIRS Petition, Exh. 4, Encl. 2, at 7, 11-12). The thickness of the drywell liner at the sand bed region, when manufactured, was designed to be 1.154 inches; the minimum thickness required in that region is 0.736 inch, which

²² The then-licensee removed the sand from the sand bed region because it was believed that the sand contained residual moisture that was causing continuing corrosion (NIRS Petition at 8). Removal of the sand allowed an inspection of the concrete floor, which revealed that the floor’s condition “prevented proper drainage of water, which in turn, aggravated the corrosion of [the drywell liner]” (NIRS Petition, Exh. 4, Encl. 2, at 9).

²³ Although the then-licensee described the heavily corroded portion of the sand bed region as being in the shape of a “bathtub ring,” we note that this so-called observable “ring” of heavy corrosion was an aggregate of, at most, 390 inches — or less than 33 feet — in a total perimeter of approximately 150 feet. See Oyster Creek Nuclear Generating Station, Updated Final Safety Analysis Report, Vol. 4, at 3.8-5 to 3.8-6, Fig. 3.8-6. Thus, *on the record before us*, when we use the term “bathtub ring” in referring to the corrosion in the sand bed region, we do *not* mean to suggest that we perceive the corrosion as a uniform and uninterrupted ring encircling the liner that puts it at risk of buckling failure. Rather, as discussed *infra* Part II.C.2, the adequacy *vel non* of AmerGen’s monitoring activities in that region to identify and control the effect and extent of corrosion during the period of extended operations is a material fact that NIRS has placed in genuine dispute.

is based on the buckling criterion for the liner (*id.* at 7, 11).²⁴ The thinnest UT thickness measurement in the sand bed region recorded in July 1991 was 0.803 inch, and the thinnest measurement in that region recorded in December 1992 was 0.800 inch (*id.* at 7). The UT measurements thus revealed that, in December 1992, as little as 0.064 inch of margin existed until the liner in the sand bed region violated the buckling criterion.²⁵ Although the licensee claimed that “corrosion in the sand bed region [is] now stopped” (*id.* at 13), it nevertheless emphasized that the “*integrity of the . . . drywell remains a priority concern of [Oyster Creek] management. We will continue UT thickness measurements for the life of the plant*” (*ibid.*) (emphasis added).

In September 1994, during Oyster Creek’s 15th Refueling Outage, the then-licensee again inspected the drywell liner and reported the results to the NRC Staff. The licensee reiterated that, based on UT measurements, “corrosion has been arrested in the sand bed region” (NIRS Petition, Exh. 6, Letter from R.W. Keaten, GPU Nuclear Corp., to U.S. Nuclear Regulatory Commission at 1 (Sept. 15, 1995)). The licensee also advised that the epoxy coating on the corroded areas in the sand bed region appeared “satisfactory with no signs of deterioration such as blisters, flakes, [or] discoloration” (*id.* at 2). Although the licensee reaffirmed its commitment “*to continue taking drywell thickness measurements for the life of the plant*” (*id.* at 1) (emphasis added), it sought the Staff’s permission to confine future UT measurements to the upper elevations of the drywell liner, which showed “no evidence of ongoing corrosion” (*id.* at 2). As to the sand bed region, stated the licensee, “UT thickness measurements will be taken one more time [in 1996] during the [16th Refueling] Outage” (*ibid.*). In addition, the licensee committed to performing a visual inspection of the epoxy coating in the sand bed region during the 16th Refueling Outage and, at a minimum, again during the 18th Refueling Outage by “direct (physical) and/or remote methods on a sample basis” (*ibid.*). Based on these visual inspections, “any appropriate corrective action will be taken, and the need for additional [post 18th Refueling Outage] inspections will be determined to ensure that drywell integrity is maintained for the remaining life of the plant” (*ibid.*).²⁶ The NRC Staff approved this inspection plan, with the caveat that “since water leaking from the pools above the reactor

²⁴ If, as a result of corrosion, a substantial portion of the wall’s perimeter becomes thinner than the buckling criterion, a risk arises that the tremendous weight of the drywell liner above the sand bed region will cause the structure to collapse (*but cf. supra* note 23).

²⁵ Notably, although the then-licensee informed the NRC Staff that the thinnest 1992 measurement in the sand bed region was 0.800 inch, it also advised that “‘Bays 1 and 13 have several locations where the measured thickness is below [the] 0.736 inch [buckling criterion]’” (NIRS Reply at 11 (quoting NIRS Petition, Exh. 4, Encl. 2, at 11)).

²⁶ The licensee observed that the epoxy coating “has an estimated life of 8-10 years, which makes the current projected end of life between December 2000 and December 2002” (NIRS Petition, Exh. 6, at 2).

cavity has been the source of corrosion, the licensee should make a commitment to the effect that an additional inspection of the drywell will be performed about 3 months after the discovery of any water leakage” (NIRS Petition, Exh. 9, Letter from Alexander W. Dromerick, Office of Nuclear Reactor Regulation, to John J. Barton, GPU Nuclear Corp., Attachment at 1 (Nov. 1, 1995)).

Consistent with this plan, Oyster Creek’s licensee has taken UT measurements in the upper drywell liner during every other refueling outage, most recently in 2004 (AmerGen Answer to NIRS Petition at 21). UT measurements were last taken in the sand bed region in 1996, but the epoxy coating is visually inspected periodically, most recently during the refueling outages in 2000 and 2004 (*ibid.*). Based on these measurements and inspections, AmerGen concludes that corrosion on the drywell liner has been arrested, including in the sand bed region (*ibid.*).

In its License Renewal Application, AmerGen states its commitment to continue (1) taking periodic UT measurements of the upper drywell liner, and (2) conducting visual inspections of the epoxy coating in the sand bed region (AmerGen Answer to NIRS Petition at 23-24, 26). Moreover, prior to any operations under a renewed license, AmerGen will take a set of one-time UT measurements of the drywell liner in the sand bed region “to confirm that the surface coating applied to this region of the containment has arrested corrosion” (AmerGen Answer to New Jersey Petition, Exh. 1, at 3). AmerGen explains (*ibid.*):

These [UT] measurements will be performed using [UT] from inside the drywell. The locations of these measurements will be a sample of areas previously inspected (in the 1990s) and identified as having exhibited corrosion. Inspecting the same locations will allow comparison of results in order to confirm that the surface coating applied in 1992 has arrested corrosion that had previously occurred.

2. *NIRS’s Contention Challenging the Testing of the Extent of Corrosion of the Drywell Liner in the Sand Bed Region During the Period of Extended Operation Is Admissible*

NIRS contends that AmerGen’s License Renewal Application fails to establish an adequate aging management program for the drywell liner that will enable AmerGen to determine the amount of corrosion in critical areas at and above the sand bed region and thereby manage the safety margins during the term of the extended license. In our judgment, NIRS’s contention is overbroad to the extent it challenges AmerGen’s aging management program above the sand bed region.²⁷

²⁷We limit NIRS’s contention to the sand bed region because, contrary to NIRS’s assertion, AmerGen is performing, and will continue to perform during the renewal period, UT measurements at critical locations in the upper region of the drywell liner. Such measurements are intended to enable
(Continued)

However, as explained *infra*, we conclude that NIRS's contention is admissible to the extent it challenges the aging management program in the sand bed region of the drywell liner. We therefore narrow NIRS's contention to read as follows:

AmerGen's License Renewal Application fails to establish an adequate aging management plan for the sand bed region of the drywell liner, because its corrosion management program fails to include periodic UT measurements in that region throughout the period of extended operation and, thus, will not enable AmerGen to determine the amount of corrosion in that region and thereby maintain the safety margins during the term of the extended license.

So narrowed, for the reasons discussed below, we conclude that NIRS's contention satisfies the six admissibility requirements of 10 C.F.R. § 2.309(f)(1).²⁸

First, NIRS's contention provides a "specific statement of the issue of . . . fact to be raised" (10 C.F.R. § 2.309(f)(1)(i)). Namely, NIRS questions whether — absent continuing, periodic UT measurements in the sand bed region — AmerGen's drywell liner corrosion management program will adequately enable AmerGen to determine the amount of corrosion in that region and maintain necessary safety margins during the extended license period.

Second, NIRS's contention provides a "brief explanation of the basis for the contention" (10 C.F.R. § 2.309(f)(1)(ii)). In particular, NIRS explains that: (1) the drywell liner, which must be maintained for structural support and as a containment in the event of an accident, experienced moisture intrusion that resulted in severe corrosion (NIRS Petition at 4-5); (2) the most serious corrosion occurred in the sand bed region, where the thickness of the liner was reduced by over 1/4 inch (*id.* at 5); (3) the sand bed region contains a "bathtub ring" of

AmerGen to determine the amount of corrosion in the upper region and thereby maintain the safety margins during the term of the extended license (AmerGen Answer to NIRS Petition at 21, 23-25). For this reason, NIRS's contention — to the extent it includes the upper region of the drywell liner — lacks an adequate basis, because it fails to explain with specificity or support why AmerGen's corrosion management program for that region is inadequate (AmerGen Answer to NIRS Petition at 25), and, moreover, it overlooks an amendment to the Oyster Creek Technical Specifications that reduced the drywell liner design pressure from 62 psig to 44 psig, which, in turn, allowed for a decrease in the minimum allowable thickness of the liner, resulting in an increased safety margin in the upper region (*ibid.*; NRC Staff Answer to NIRS Petition at 14-15).

²⁸ We reject NIRS's assertion — developed for the first time in its Reply Brief (NIRS Reply at 14) — that the contention should be construed as encompassing the drywell liner *below* the sand bed region. Although NIRS's Petition argued generally that UT measurements should be taken at all "critical" levels of the drywell liner (*e.g.*, NIRS Petition at 3), the arguments focused specifically and exclusively on the sand bed region and the upper region of the drywell liner (*e.g.*, *id.* at 3, 9, 12, 13). NIRS, having failed to develop this argument in its Petition, is foreclosed from doing so in the first instance in its Reply Brief. *See Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004).

corrosion that is “an 8 to 18 inch wide band [in each of the surrounding bays] about 30 to 40 inches long containing . . . heavily corroded areas” (*id.* at 9); (4) in some areas of the sand bed region, there is as little as 0.064 inch of safety margin before the liner violates the buckling criterion (*ibid.*), and there are several locations where the measured thickness is less than that criterion (NIRS Reply at 11); (5) corrosion-causing moisture continues to enter the drywell liner (NIRS Petition at 6, 11, 13; NIRS Reply at 17-18); (6) visual inspections alone of the sand bed region may not detect a gradual, continuing, thinning of the liner before the buckling criterion is violated, especially if corrosion is occurring underneath the epoxy coating, which may mask such corrosion (NIRS Petition at 10); (7) both the NRC Staff and the Oyster Creek licensee have stated that UT measurements of the drywell liner are necessary “for the life of the plant” to assure public safety (*id.* at 14); and (8) accordingly, periodic UT inspections must be employed in the sand bed region during the license renewal period to confirm the actual remaining wall thicknesses of this vital safety structure (*id.* at 11).²⁹

²⁹ AmerGen correctly states that the following assertions made by NIRS are inaccurate (AmerGen Answer to NIRS Petition at 28-30): (1) NIRS asserts that water will be retained in the pores of the sand and continue to support corrosion, when in fact, all of the sand has been removed from the sand bed; (2) NIRS states that spillage from the refueling canal or leaks in the spent fuel pool could be a source of corrosive borated water, when in fact, Oyster Creek does not use borated water in the refueling canal or the spent fuel pool; and (3) NIRS incorrectly states that no UT measurements have been made in the sand bed region since 1992, when in fact, UT measurements were also taken in the sand bed region in 1994 and 1996. But the inaccuracy of the above assertions does not render the basis of NIRS’s contention deficient, because NIRS’s contention does not hinge on these assertions. Rather, as discussed above in text, NIRS’s contention is based on its concern that AmerGen’s corrosion management program for the sand bed region fails to provide reasonable assurance that the actual remaining drywell liner thickness will be maintained consistent with the buckling criterion, and that — given the extent of corrosion damage in that region and the potential for continuing corrosion, coupled with the licensee’s prior acknowledgment of the need to take UT measurements for the life of the plant to assure public safety — periodic UT measurements must be taken in the sand bed region during the renewal period (NIRS Petition at 14). NIRS has, in our judgment, adequately explained the basis of its contention.

AmerGen also attacks NIRS’s contention on the ground that NIRS asserts that pinhole leaks in the epoxy coating in the sand bed region could allow for water seepage behind the coating that results in further corrosion, but NIRS does not show that water has continued to enter the drywell liner (AmerGen Answer to NIRS Petition at 29). AmerGen’s argument ignores that Oyster Creek’s prior licensee conceded in 1993 that corrosion would continue in the drywell liner, albeit at a “low” rate (NIRS Petition, Exh. 4, at 2). *See also* NIRS Petition, Exh. 1, at 2 (drain lines and other penetrations in concrete shield “are open during operation and would allow moist air to enter and rise up the gap and later cool and condense as water”). NIRS also showed that: (1) the initial corrosion was caused by significant leakage from the region above the drywell liner (NIRS Petition, Exh. 1, at 1); and (2) the Oyster Creek licensee and the NRC Staff both recognized the possibility of future water leakage (NIRS Petition, Exh. 4, at 2, & Exh. 9, at 1). Moreover, correspondence in the mid-1990s between the then-licensee and the NRC Staff appears to indicate that leakage of up to 12 gallons per minute

(Continued)

Third, NIRS has demonstrated that the issue raised in its contention “is material to the findings the NRC must make to support the action that is involved in the proceeding” (10 C.F.R. § 2.309(f)(1)(iv)).³⁰ It cannot seriously be questioned that the issue of the adequacy of Oyster Creek’s aging management program in the sand bed region of the drywell liner, including the necessity *vel non* of periodic UT measurements to maintain the safety margins during the term of the extended license, is material in this license renewal proceeding, in which AmerGen has a regulatory duty to “demonstrate that the effects of aging [of the drywell liner] will be adequately managed so that the intended function(s) [i.e., structural support and pressure boundary] will be maintained . . . for the period of extended operations” (10 C.F.R. § 54.21(a)(3)).

Fourth, NIRS has provided a “concise statement of the alleged facts or expert opinions which support . . . [its] position . . . , together with references to the specific sources and documents on which [it] intends to rely” (10 C.F.R. § 2.309(f)(1)(v)). NIRS accompanied its Petition with a memorandum from Dr. Rudolf H. Hausler, President, Corro-Consulta, in which he considered — in light of the extensive corrosion in the sand bed region — whether visual inspection alone is sufficient “to ascertain that no additional corrosion has further impaired the integrity of the [drywell liner]” (NIRS Petition, Dr. Hausler Memo at 1). In his opinion, that issue must be resolved in the negative.

Dr. Hausler observed that further corrosion in the sand bed region was a reasonable possibility. He indicated that it was questionable whether the coating — which was applied in 1992 and which has a projected life that expired in 2002 (*supra* note 26) — would endure for the period of extended operation (NIRS Petition, Dr. Hausler Memo at 1). During operations, the temperature on the outside of the sand bed region is “high enough to cause slow deterioration of the epoxy coating” (*ibid.*).³¹ Additionally, “water could and can enter the space between the concrete containment and the [drywell liner] during refueling and other non-planned outages” (*id.* at 2). “Deteriorated epoxy coating and the presence of liquid . . . would certainly lead to additional localized corrosion”

may occur during refueling outages (NIRS Reply Brief, Exhs. 10 & 11). In light of Oyster Creek’s history of significant leakage in the drywell liner that everyone concedes could recur, coupled with the leakage that appears to occur during refueling outages and a corrosive environment that results in continuing corrosion at a low rate, we believe that NIRS has provided an adequate factual basis to support its assertion that corrosion-causing moisture continues to occur in the sand bed region, which may be especially problematic if such moisture seeps into pinhole leaks in the epoxy coating.

³⁰ We analyze whether NIRS’s contention satisfies the “scope” requirement of 10 C.F.R. § 2.309(f)(1)(iii) *infra* pp. 222-26.

³¹ AmerGen observes that Dr. Hausler makes statements regarding temperatures of the drywell liner without citing a source (AmerGen Answer to NIRS Petition at 28). We do not view the omission of that particular source as significant, much less fatal. In any event, NIRS corrected that omission in its Reply Brief (NIRS Reply at 20).

(*ibid.*). Furthermore, stated Dr. Hausler, “the application of epoxy resins on metal surfaces may result in holidays (pinholes) depending on surface preparation, the curing process, and general cleanliness. There is, therefore, no guarantee that the epoxy coating prevented further growth of existing pits” (*ibid.*).

Dr. Hausler also opined that visual inspections of the sand bed region are not sufficient to determine whether the drywell liner has an adequate margin of safety. Although he acknowledged that severe corrosion under the epoxy coating “would lead to blistering and cracking of the epoxy coat [that] could be observed visually” (NIRS Petition, Dr. Hausler Memo at 2), he also stressed that “the absence of such observations does *not* necessarily mean that *no* additional corrosion occurred in the pitted areas” (*ibid.* (emphasis added)). Consequently, Dr. Hausler states, it is “absolutely essential” that the integrity of the vessel be directly assessed by periodic UT measurements or optical pit depth measurements (*ibid.*).³²

We find that the detailed statement of facts in NIRS’s Petition regarding the contention, which included references to the specific sources and documents on which NIRS intends to rely, and which also included Dr. Hausler’s memorandum and numerous exhibits (many of which we cited *supra* Part II.C.1), amply satisfies the admissibility requirements in 10 C.F.R. § 2.309(f)(1)(v).³³

³² Contrary to AmerGen’s assertion (AmerGen Answer to NIRS Petition at 27-28), Dr. Hausler does not contradict NIRS’s contention regarding the need for periodic UT measurements. We construe his memorandum as saying that visual inspections alone will not provide reasonable assurance that the safety margin of thickness in the sand bed region will be maintained. Such inspections, according to Dr. Hausler, must be supplemented by UT measurements, which “are very difficult and have to be made by highly technically trained personnel” (NIRS Petition, Dr. Hausler Memo at 2) — or by optical pit depth measurements — which “are no doubt more reliable” (*ibid.*).

³³ AmerGen claims that NIRS “failed to meet [its] burden to demonstrate that Dr. Hausler is qualified to provide opinions on this matter,” because his memorandum “is not signed, and contains no statement of qualifications or curriculum vitae” (AmerGen Answer to NIRS Petition at 27). NIRS responded in its Reply Brief that the “electronic signature of Dr. Hausler did not optically transmit . . . [in] the .pdf version of [his] expert opinion . . . which was posted to ADAMS” (NIRS Reply at 19). NIRS corrected this alleged deficiency by attaching to its Reply Brief a copy of the original filing containing Dr. Hausler’s signature (NIRS Reply, Exh. 13). Additionally, NIRS attached to its Reply Brief a copy of Dr. Hausler’s curriculum vitae (NIRS Reply, Exh. 14). Assuming *arguendo* the correctness of AmerGen’s assertion that Dr. Hausler’s qualification to provide an opinion in this case was placed in doubt by the absence of his signature and his curriculum vitae, we conclude that this putative deficiency has been cured without any prejudice to AmerGen.

AmerGen did not object to NIRS attaching Dr. Hausler’s curriculum vitae to its Reply Brief. However, AmerGen asks this Board to strike NIRS’s Exhibit 13 containing Dr. Hausler’s electronic signature, because “[e]lectronic signatures are not authorized in NRC adjudicatory proceedings” (AmerGen Motion To Strike at 7 (Dec. 29, 2005)) (citing 10 C.F.R. § 2.304(c)). We deny AmerGen’s request. Contrary to AmerGen’s understanding, section 2.304(c) — which states that the “original of each document must be signed in ink” — applies only to *pleadings* and a party’s affidavits, as

(*Continued*)

Fifth, NIRS's contention provides "sufficient information to show that a genuine dispute exists . . . on a material issue of law or fact" (10 C.F.R. § 2.309(f)(1)(vi)). Specifically, we find that a genuine dispute exists regarding whether AmerGen's aging management program for the heavily corroded sand bed region — which does *not* include periodic UT measurements — will enable AmerGen to determine the extent and continuation *vel non* of corrosion and thereby maintain the required safety margins during the term of the extended license. *See* NIRS Petition at 5-14.

AmerGen nevertheless asserts that NIRS's contention fails to show a genuine dispute of fact, because AmerGen has committed "to perform one-time UT measurements in the sand bed region" prior to operations under a renewed license (AmerGen Answer to NIRS Petition at 26). According to AmerGen, this one-time set of UT measurements should satisfy NIRS's "demand for a new set of near-term, ASME-compliant UT measurements" in the sand bed region (*ibid.*).

But AmerGen's assertion misconceives NIRS's contention, which seeks not a set of "one-time UT measurements" in the sand bed region. Rather, NIRS contends that periodic UT measurements in this heavily corroded and epoxy-covered region are essential *throughout Oyster Creek's extended period of operation* to ensure the absence of continuing corrosion, maintain the required safety margin, and thereby ensure the effects of aging are adequately managed (10 C.F.R. § 54.21(a)(3)). As NIRS explains (NIRS Reply at 15) (citation omitted):

As stated in [NIRS] Exhibit 3, previous NRC Safety Evaluations of Oyster Creek's Drywell Liner Integrity identified the importance that "it is essential that [the licensee] continue UT thickness measurements at refueling outages and at outages of opportunity for the life of the plant." [NIRS] argue[s] that it is unreasonable that when UT measurement equipment is brought into Oyster Creek's containment for the measurements of the upper levels during subsequent inspections during the renewal period that the operator would ignore the opportunity to confirm projections as to coating performance at the sand bed with UT measurements. [NIRS] find[s]

evidenced by the fact that the regulation expressly requires a signature by the *party*, the *party's* authorized representative, or the *party's* attorney. In any event, AmerGen's request to strike NIRS's Exhibit 13 — even if granted — would not affect our conclusion that NIRS's contention satisfies the requirements of section 2.309(f)(1)(v). That provision requires a "concise statement of the alleged facts or expert opinions" that support its position (10 C.F.R. § 2.309(f)(1)(v)). It does not require the submission of an expert opinion, nor does it require that an expert opinion be submitted in the form of admissible evidence (*Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 22 n.1 (1998)). Here, NIRS's statement of the facts in its Petition, coupled with the views embodied in Dr. Hausler's memorandum (which AmerGen does *not* seek to strike), suffice to meet the requirements of section 2.309(f)(1)(v), which is *not* designed to erect an onerous evidentiary hurdle, but rather "helps to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions" (*Oconee*, CLI-99-11, 49 NRC at 334).

no reassurance in AmerGen's "don't look, don't find" approach to projecting the integrity of this vital radiation containment component over the proposed 20-year extension.

In *Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43 (1994), the Commission stated that, at the contention filing stage, "the factual support necessary to show that a genuine dispute exists need not be in formal evidentiary form, nor be as strong as that necessary to withstand a summary disposition motion" (40 NRC at 51). Rather, the petitioner need simply make "a minimal showing that the material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate" (*ibid.*) (internal quotation marks omitted). We believe that NIRS has satisfied this requirement.

Lastly, we conclude that NIRS's contention "is within the scope of the proceeding" (10 C.F.R. § 2.309(f)(1)(iii)). As indicated in the Notice of Opportunity for Hearing concerning AmerGen's License Renewal Application (70 Fed. Reg. 54,585 (Sept. 15, 2005)), the scope of the NRC Staff's public health and safety review in the context of a license renewal proceeding — and, hence, the scope of an admissible contention — "encompasses a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses" (*McGuire/Catawba*, CLI-01-20, 54 NRC at 212; *see also supra* pp. 198-99). Here, there is no dispute that the Commission's regulations (10 C.F.R. §§ 54.4, 54.21(a)) required AmerGen's License Renewal Application to include an aging management review for the drywell liner. Nor is there any dispute that AmerGen performed an aging management review for the liner. *See* Oyster Creek Generating Station, License Renewal Application at 3.5-18 to 3.5-21, 4-54 to 4-55 (July 22, 2005) [hereinafter LRA]. As AmerGen states (AmerGen First Supp. Brief at 8):

[AmerGen's License Renewal Application] describes the programs and activities that are credited for managing aging effects during the period of extended operation. Those programs and activities include monitoring of the drywell [liner] for corrosion, because AmerGen has determined that such monitoring is necessary to ensure that the CLB will be maintained during the period of extended operation.

In our judgment, NIRS's contention — which challenges the adequacy of AmerGen's aging management program for measuring corrosion in the sand bed region of the drywell liner during the period of extended operations — fits squarely within the scope of this proceeding.

Our conclusion is buttressed by the candid acknowledgment by AmerGen and the NRC Staff that NIRS's contention falls within the scope of this proceeding "[t]o the extent that [it] addresses AmerGen's aging management program related

to potential corrosion of the drywell [liner] during the period of extended operation under the renewed license” (AmerGen First Supp. Brief at 1-2; *accord* NRC Staff First Supp. Brief at 7). NIRS’s contention addresses precisely that.

Notably, in their answers to NIRS’s Petition, neither AmerGen nor the NRC Staff asserted that NIRS’s contention was outside the scope of this proceeding. However, in response to our request for additional briefing on the scope issue (*supra* note 3), they both — for the first time — expressed concern that NIRS’s contention was outside the scope. For the reasons discussed below, we conclude that their belated concerns are not justified.

AmerGen argues that “to the extent that the contention could be construed as a challenge to the adequacy of AmerGen’s corrosion inspection program during the *current* term of [Oyster Creek’s] license it is clearly outside the scope of this license renewal proceeding” (AmerGen First Supp. Brief at 2). This argument is correct, but it is also quite beside the point, because NIRS’s contention does *not* challenge AmerGen’s corrosion inspection program for the current licensing period, nor does it challenge any aspect of AmerGen’s CLB for the current licensing period. Rather, it permissibly challenges the adequacy of AmerGen’s aging management program for measuring corrosion in the sand bed region of the drywell liner during the period of extended operations. As AmerGen itself correctly states, NIRS may raise age-related issues “associated with drywell [liner] corrosion that . . . call into question AmerGen’s program to provide reasonable assurance that the CLB [or, more specifically, the design tolerances in the sand bed region] will be maintained in the period of extended operations” (AmerGen First Supp. Brief at 8).

The NRC Staff argues that NIRS’s contention is outside the scope of this proceeding, because although “NIRS addresses the drywell corrosion management program, it does not refer specifically to the effects of aging” (NRC Staff First Supp. Brief at 7). Unfortunately, the Staff fails to develop this argument, so we cannot be certain of the precise point that the Staff is trying to make.³⁴ To the extent the Staff is arguing that NIRS allegedly failed to make a specific reference to the effects of aging, we find this argument unpersuasive. Here, the adverse aging effect addressed by NIRS’s contention is the potential for continuing corrosion during the 20-year renewal period in a “component [that] already has razor-thin safety margins” (NIRS Supp. Brief at 10). Contrary to the Staff’s assertion, NIRS plainly indicated that its contention was based on the effects of aging when it cited the “Summary of Aging Management Evaluations” in AmerGen’s License Renewal Application regarding “[l]oss of material due to corrosion in the sand

³⁴We remind the Staff that it, like every participant in the adjudicative process, has an obligation to fully develop its arguments. “Our adversarial system relies on the advocates to inform the discussion and raise [and develop] the issues” (*Independent Towers of Washington v. Washington*, 350 F.3d 925, 929 (9th Cir. 2003)).

bed [region],’” and it argued that AmerGen’s “age management review for the 20-year extension . . . [fails to provide] adequate UT measurements . . . of the already damaged (corrosion induced wall thinning) sand bed region” (NIRS Reply at 9) (quoting LRA at 3.5-35). In other words, NIRS’s contention focuses on a plant component for which, in NIRS’s view, regulatory “activities and requirements may not be sufficient to manage the effects of aging in the period of extended operation” (60 Fed. Reg. at 22,469). The Commission has indicated that this type of contention falls within the scope of a license renewal proceeding (*Turkey Point*, CLI-01-17, 54 NRC at 10).³⁵

It is possible, however, that the Staff is attempting to make a different point when it alleges that NIRS “does not refer specifically to the effects of aging” (NRC Staff First Supp. Brief at 7). The Staff may be endeavoring to argue that NIRS may not challenge the adequacy of AmerGen’s corrosion management program, because NIRS failed to show that corrosion in the sand bed region of the drywell liner is related to aging. *But cf. supra* note 35. If the Staff had developed this argument, we believe it would go as follows: Corrosion in the sand bed region of the drywell liner is not age-related degradation, but rather a discrete problem that occurred two decades ago. The leakage that caused the corrosion has now been stopped, the corrosion has been arrested, and the thickness of the liner has not been reduced below the permissible minimum. Under these circumstances, it presumably would be argued, the corrosion should be characterized as non-age-related degradation that is subject to regulatory oversight and an ongoing monitoring program and, therefore, is beyond the scope of this proceeding.

Such an argument might have merit if the underlying assumptions were demonstrably correct. That is, we might be persuaded that drywell liner corrosion during the renewal period was not age-related degradation if the record clearly established that (1) corrosion-causing moisture no longer occurred in the drywell liner, and (2) corrosion of the drywell liner in the sand bed region had been totally arrested. In our judgment, however, NIRS has made a sufficient showing to put these material facts in genuine dispute (*supra* pp. 217-22 & n.29). Our conclusion is bolstered by AmerGen’s concession that corrosion in the drywell liner is an “aging effect[]” that must be monitored throughout the period of extended operation to ensure adherence to the CLB (*supra* note 35). Plainly, this concession tends to support a conclusion that a corrosive environment exists in the drywell liner that may result in continuing degradation during the renewal period.

³⁵ The Commission has recognized that “corrosion” can be an “[a]dverse aging effect[]” (*Turkey Point*, CLI-01-17, 54 NRC at 7). Consistent with that recognition, AmerGen described the corrosion in the drywell liner as an “aging effect[]” that must be monitored during the renewal period “to ensure that the CLB will be maintained during the period of extended operations” (AmerGen First Supp. Brief at 8).

We are therefore unwilling, *at this juncture and on this record*, to rule definitively that corrosion in the drywell liner during the renewal period is not age-related degradation. To conclude otherwise would effectively require us to adjudicate merits-related issues, which we decline to do at this stage of the proceeding. *See Mississippi Power and Light Co.* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973) (“in passing upon the question as to whether an intervention petition should be granted, it is not the function of a licensing board to reach the merits of any contention contained therein”). The sole question before us is whether NIRS has submitted the requisite “minimal factual and legal foundation” (*Oconee*, CLI-99-11, 49 NRC at 334) to support its contention that AmerGen’s monitoring activities in the sand bed region during the period of extended operation are not adequate to survey the degree and extent of thinning, determine if the corrosion process continues, and ensure that the required safety margins are maintained. We believe that it has. A contrary conclusion would, in our view, improperly turn the admissibility factors into “a fortress to deny intervention” (*id.* at 335) (internal quotation marks omitted), and wrongfully deprive NIRS of a hearing.

In concluding that NIRS’s contention is within the scope of this proceeding, we are acutely mindful that a license renewal proceeding is “far more limited than the [Atomic Energy Act] issues that we address when reviewing an initial operating license application” (*McGuire/Catawba*, CLI-02-26, 56 NRC at 364), because the Commission’s “ongoing regulatory oversight programs routinely address many safety issues and will continue to address them in years 41 through 60 of a plant’s life” (*ibid.*). “[C]onsideration of those issues in a license renewal proceeding would be unnecessary and wasteful” (*ibid.*).

As shown above, however, NIRS’s contention does *not* challenge Oyster Creek’s current, ongoing operations or programs conducted under the existing license. Rather, it focuses narrowly and permissibly on AmerGen’s aging management program for the period of extended operation, asserting that AmerGen’s monitoring activities in the sand bed region may not be sufficient to identify and control the effects of aging — i.e., corrosion — that will occur during the 20-year renewal period. This contention falls squarely within the scope of this proceeding. *See Turkey Point*, CLI-01-17, 54 NRC at 7-8 (license renewal inquiry includes “age-related degradation” of components that, left unmitigated, can “unacceptably reduce safety margins, and lead to the loss of required plant functions . . . with a potential for offsite exposures”).

In sum, we conclude that NIRS’s contention, narrowed to apply only to the

sand bed region (*supra* p. 217), satisfies the admissibility requirements of 10 C.F.R. § 2.309(f)(1).³⁶

III. MOTIONS

1. On December 29, 2005, AmerGen submitted a motion to strike “three new arguments and four new exhibits” from NIRS’s Reply Brief (AmerGen Motion To Strike at 3). The “new arguments” that AmerGen seeks to strike are: (1) NIRS’s argument that its contention seeks UT measurements *below* the sand bed region; (2) NIRS’s argument that AmerGen failed to comply with particular epoxy coating inspection standards; and (3) NIRS’s argument that excessive corrosion in the sand bed region could lead to buckling of the drywell liner (*id.* at 4-6). The “four new exhibits” that AmerGen seeks to strike are Exhibits 10, 11, and 12 (which NIRS allegedly used to show the presence of water in the drywell liner since 1992) and Exhibit 13 (which contained Dr. Hausler’s electronic signature that did not optically transmit with his memorandum) (*id.* at 6-8). NIRS opposes AmerGen’s motion ([NIRS] Opposition to AmerGen Motion To Strike (Jan. 13, 2006)).

We grant AmerGen’s motion in part, and deny it in part. First, regarding AmerGen’s motion to strike NIRS’s argument to construe its contention as seeking UT measurements below the sand bed region, our disposition of that issue has rendered AmerGen’s request moot (*supra* note 28). Second, we grant AmerGen’s motion to strike NIRS’s argument that AmerGen failed to comply with particular

³⁶In their supplemental briefs addressing the scope issue, AmerGen, NIRS, and the NRC Staff discussed relevant Commission case law. Although all of the cases cited by the parties ruled that the proposed contentions were inadmissible, each of the cases is easily distinguished from this case. For example, in *Turkey Point*, CLI-01-17, 54 NRC at 9, the Commission explained that emergency planning is a safety issue that is outside the scope of license renewal, because the Commission has “various regulations establishing standards for emergency plans . . . [that] are independent of license renewal and will continue to apply during the renewal term.” Here, in contrast, NIRS does *not* challenge safety issues that are governed by standards embedded in regulations; rather, NIRS permissibly contends that regulatory activities and requirements “may not be sufficient to manage the effects of aging in [the drywell liner during] the period of extended operation” (*id.* at 10 (quoting 60 Fed. Reg. at 22,469)). In *Turkey Point*, the Commission also ruled that a safety-related contention regarding the impact of hurricanes or an aircraft crash on the spent fuel storage pool was outside the scope, because it did “not relate to managing the aging of systems, structures, and components” (*id.* at 23). Here, in contrast, NIRS’s contention goes to the heart of AmerGen’s aging management program related to potential corrosion of the drywell liner during the period of extended operation. In *McGuire/Catawba*, CLI-02-26, 56 NRC at 364, the Commission ruled that terrorism contentions are “related to security and are therefore, under our rules, unrelated to ‘the detrimental effects of aging’ ” and, consequently, outside the scope. Here, in contrast, NIRS’s contention is directly related to the detrimental effects of aging, and more specifically, the adverse effects of corrosion that may occur during the period of extended operation.

epoxy coating inspection standards, but our action in this regard does not alter our conclusion that NIRS legitimately contends that visual inspections alone of the epoxy coating will not provide reasonable assurance that pinhole leaks may provide a pathway for water intrusion in the coating and subsequent corrosion (*see* NIRS Petition at 11; NIRS Petition, Dr. Hausler Memo at 1-2). Third, we deny AmerGen's request to strike NIRS's argument that excessive corrosion in the sand bed region could lead to buckling of the drywell liner. NIRS has shown (NIRS Petition at 4-6, 9-10, 13; *id.*, Exh. 4, Encl. 2, at 11; NIRS Reply at 11, 12) that the drywell liner is maintained both for structural support and as a pressure boundary, that the sand bed region suffered severe corrosion, that the corrosion is in the form of an 8- to 18-inch-wide band (or bathtub ring) around the liner, that the buckling criterion for the sand bed region is 0.736 inch, that the criterion has been violated in some areas of the sand bed region, and in other areas the margin of safety is as little as 0.064 inch. In our judgment, NIRS's Petition was sufficiently specific to put AmerGen on notice that the contention was concerned about the structural integrity of the sand bed region for purposes of buckling. Fourth, we deny AmerGen's motion to strike Exhibits 10, 11, and 12, because those documents — which were in AmerGen's possession — legitimately responded to AmerGen's Answer and amplified arguments in NIRS's Petition. Finally, for the reasons discussed *supra* note 33, we deny AmerGen's motion to strike Exhibit 13. We emphasize, however, that our decision to admit NIRS's contention would not change even if we were to disregard those four exhibits.

2. On February 7, 2006, NIRS submitted a motion to add new contentions or, in the alternative, to supplement the basis of its current contention. *See* Motion for Leave To Add Contentions or Supplement the Basis of the Current Contention (Feb. 7, 2006). On February 17, 2006, AmerGen and the NRC Staff filed responses opposing NIRS's motion. *See* AmerGen's Answer to [NIRS's] Motion for Leave To Add Contentions or Supplement the Basis of the Current Contention (Feb. 17, 2006); NRC Staff's Response to Motion for Leave To Add Contentions or Supplement the Basis of the Current Contention (Feb. 17, 2006). We will issue a ruling on this motion pending further consideration of the parties' arguments.

IV. CONCLUSION

For the foregoing reasons, we (1) *deny* New Jersey's Request for Hearing and Petition To Intervene (*supra* Part II.B),³⁷ (2) *grant* NIRS's Request for Hearing

³⁷ Pursuant to the Atomic Energy Act, 42 U.S.C. § 2021(l) (2000), the Commission's regulations provide that an interested State that has not been admitted as a party will be afforded a reasonable opportunity to participate in a hearing (10 C.F.R. § 2.315(c)). *See Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 626-27 (2004).

and Petition To Intervene (*supra* Part II.C), (3) *grant in part and deny in part* AmerGen's Motion To Strike (*supra* Part III), and (4) *take under consideration* NIRS's Motion To Add Contentions (*supra* Part III). The hearing shall be conducted in accordance with the informal adjudicatory procedures prescribed in Subpart L of 10 C.F.R. Part 2.

This Memorandum and Order is subject to appeal in accordance with the provisions in 10 C.F.R. § 2.311. Any petitions for review meeting the requirements set forth in section 2.311 must be filed within 10 days of service of this Memorandum and Order.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD³⁸

E. Roy Hawkens, Chairman
ADMINISTRATIVE JUDGE

Dr. Paul B. Abramson³⁹
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

Rockville, Maryland
February 27, 2006

³⁸ Copies of this Memorandum and Order and the accompanying opinion concurring in part and dissenting in part were sent this date by Internet e-mail to counsel for: (1) AmerGen, (2) New Jersey, (3) NIRS, and (3) the NRC Staff.

³⁹ Judge Abramson concurs with the Board's conclusions that (1) New Jersey and NIRS established standing, and (2) New Jersey failed to proffer an admissible contention. Judge Abramson disagrees, however, with the Board's conclusion that NIRS proffered an admissible contention. He has filed a dissenting opinion that immediately follows this Memorandum and Order.

Dissenting Opinion of Judge Abramson, Disagreeing with the Board's Conclusion That NIRS Proffered an Admissible Contention

While I concur with the majority's findings regarding the petition of the New Jersey State Department of Environmental Protection, I disagree, for the reasons set out below, with their findings regarding the contention of NIRS which relates to corrosion management.

The fundamental issue with respect to the contention proffered by NIRS is whether or not it relates to a matter within the scope of this proceeding, which is focused singularly upon "the detrimental effects of aging on the functionality of certain systems, structures, and components in the period of extended operation."¹ The point of conducting a hearing regarding a request for an extension of an operating license is to determine if the Commission has reasonable assurances that the plant can operate without endangering the health and safety of the public during any such period of extended operation. It is not to rehash issues that were addressed during the initial license review or that are being addressed during the license period by ongoing regulatory oversight. In fact, the Commission has been crystal clear that the scope of a license renewal hearing excludes, because it would be "unnecessary and wasteful," consideration of matters which are the subject of the "agency's ongoing regulatory oversight programs [which] routinely address many safety issues and will continue to address them in years 41 through 60 of a plant's life (assuming a grant of the renewal application)."² Therefore, this proceeding concerns only matters in which aging-related degradation might reasonably be expected to arise during the period of proposed extended operation.

The contention submitted by NIRS undoubtedly relates to a problem of importance to the agency. In fact, it has been of such import that the agency has had an ongoing regulatory oversight program on THIS issue for THIS particular plant for more than 20 years. Unfortunately, we are not presented with any useful analysis by the parties as to whether or not the corrosion issue raised by NIRS falls within the scope of matters within the purview of a hearing for a license renewal.³ Nonetheless, that fact does not relieve us of our duty to thoroughly scrutinize the contention and determine whether it is inadmissible pursuant to

¹ Final Rule: "Nuclear Power Plant License Renewal; Revisions," 60 Fed. Reg. 22,461, 22,464 (May 8, 1995).

² *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 364 (2002).

³ In this regard, it is certainly not dispositive that the Commission mentioned corrosion as one of the sources from which "aging effects *can* result" (*Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant), CLI-01-17, 54 NRC 3, 7 (2001) (emphasis added)). While it is certain that corrosion *may* be age-related, for it to be so there must be a monotonic effect: i.e. greater time always results in greater corrosion. Where there is no exposure to a corrosive environment, there cannot be

(Continued)

governing law regardless of what was contained in the parties' briefs. The history of the corrosion at issue has been discussed at length by the majority and needs no repetition here. However, a short summary aids in understanding the reason for my concern.

This particular corrosion was initiated by a design or construction flaw or error (a faulty bellows and/or gasket, according to NIRS⁴) that caused the area above the drywell, which is flooded during refueling, to leak. As a result, water dripped slowly into the 3-inch gap between the carbon steel drywell liner and a reinforced concrete shield structure surrounding it. There the water was retained by sand, which was originally installed in the lower portion of the gap, and slowly caused corrosion of the steel liner. The problem was discovered some 20 years ago⁵ and the problem was addressed over a period of time: the sand was removed, the depth of the corrosion was measured, epoxy was placed over the corroded area to prevent further corrosion, the source of the leak was identified,⁶ and steps were taken to keep water out of the gap between the steel liner and the surrounding shield wall.⁷ Petitioners' principal concern originates from their view that "water will be retained in the pores of the sand bed . . . and continue[] to support corrosion";⁸ however, NIRS's petition recognizes that the sand was actually removed,⁹ and the focus of that petition thereupon became the agency's requirement that the licensee establish a program to measure the thickness of the remaining steel — that is, it focuses on the ongoing regulatory oversight.

NIRS's argument commences with the assertion that the drywell liner in what used to be the sand bed region has been reduced by corrosion to the point where it very closely approaches the minimum thickness required to prevent buckling load failure. However, nowhere in the original petition or the reply is the argument made by Petitioners that buckling failure is a possibility.¹⁰ In fact, Petitioners point

corrosion, and therefore a necessary element of a contention that age related degradation will take place due to corrosion is a reasoned and technically supported allegation that there is a corrosive environment.

⁴ NIRS Petition at 5.

⁵ *Id.* at 4, 5 (citing NRC Information Notice 86-99, Supplement 1 (Dec. 8, 1986) as stating that the problem was first recognized in the Oyster Creek plant in 1980 and that investigations were undertaken by the operator beginning in 1983).

⁶ Oyster Creek Generating Station License Renewal Application (July 22, 2005) at 3.5-19 to 3.5-20.

⁷ *Id.* at 4-54 to 4-55.

⁸ NIRS Petition at 6.

⁹ *Id.* at 7-8 (noting that sand removal was initiated nearly 20 years ago, in 1988, and completed in 1992).

¹⁰ *Id.* at 8. Petitioners note that the sand was originally installed to prevent buckling of the drywell liner at the transition from freestanding, but they make no mention whatsoever of any effects that the removal of that sand might have upon the propensity of the liner for buckling failure. Nor do

(Continued)

out that each of ten bays has a region of localized corrosion 8 to 18 inches wide and 30 to 40 inches long,¹¹ but they make no mention of the actual total circumference of the liner at that vertical location or what portion of it is corroded by these ten corrosion sites. Petitioners have not argued, and have presented no technical support for the proposition, that this apparently spaced pattern of reduction in thickness produces the type of weakening that could result in buckling failure; in fact, in 1992, the NRC Staff undertook a detailed review of a GE reanalysis of the potential for buckling failure and found no effect from removal of the sand or from the reduced thickness of the steel liner.¹²

In 1995, the licensee reported that “the corrosion has been arrested in the sand bed region of the drywell.”¹³

The effects of this particular corrosion and whether or not it has been or will continue to be properly monitored is a matter for the agency’s Office of Enforcement because it is the subject of an ongoing regulatory oversight program; the corrosion was a temporary problem, not related to aging, and therefore inappropriate subject matter for this proceeding.

Notwithstanding the attention devoted by NIRS in their petition to the amount of previous corrosion, the primary impact, in fact, is to challenge the efficacy of the ongoing regulatory oversight program,¹⁴ contending that the program is insufficient to determine the extent of existing, or — as Petitioners imply but do

they present any discussion or offer any expert analysis or testimony to support an argument that the reduction in liner thickness caused by this corrosion increases the potential for buckling failure. In an apparent effort to cure this failing, Petitioners’ expert has submitted an affidavit accompanying Petitioners’ February 7, 2006 Motion for Leave To Add Contentions or Supplement the Basis of the Current Contention [hereinafter NIRS February Motion], in which he states the additional technical proposition that “localized corrosion probably occurred on the outside of the liner at the concrete-steel boundary,” and added his conclusion that “the entire structure is not only in danger of buckling, but indeed of collapse.” NIRS February Motion, Exh. C at 3. The NIRS February Motion is opposed by AmerGen and the NRC Staff, and — as indicated in the majority opinion — it remains pending before the Board.

¹¹ NIRS Petition at 9.

¹² See NIRS Petition, Exh. 3, at 4 (including an NRC Staff finding, from 1992, that “the Oyster Creek drywell has adequate margin against buckling with no sand support for an assumed sand bed region shell thickness of 0.736 inch” [the measured minimum thickness remaining after corrosion]. The Staff went on to observe that the results of this stress analysis can only be interpreted to represent the corroded areas and noted it is essential that the licensee perform thickness measurements at all available opportunities and at various accessible areas “so as to confirm that the thickness of the corroded areas are as projected and the corroded areas are localized.” *Id.* at 5.

¹³ NIRS Petition, Exh. 6, at 1. In this regard, Petitioners imply that the reductions in thickness could cause the drywell liner to leak when pressurized by the consequences of a severe accident. NIRS Petition at 4. However, that speculation is entirely without argument or support.

¹⁴ NRC Staff Answer to NIRS Petition at 12-16.

not assert — future corrosion.¹⁵ The NRC Staff points out the existence of the approved drywell inspection and corrosion management program, but the Staff fails to analyze the impacts upon the admissibility of the Petitioners' contention of either: (a) the fact that this was a temporary problem which has been discovered and addressed and is believed to have been resolved; or (b) that this regulatory oversight program has been ongoing for two decades. Similarly, the Applicant merely mentions the fact that its drywell management program has been approved by the agency but proffers no analysis of the effect of this program upon the admissibility of this contention.¹⁶

Admissibility here of such a challenge requires examination of the proper scope of a license renewal proceeding. For a contention to be admissible in a proceeding regarding a proposed license period extension, it must relate to the “detrimental effects of aging.”¹⁷ Here, the degradation cited by Petitioners was the result of a temporary situation caused by a design or construction flaw or error. Once such a temporary situation has been cured, there is no longer any effect from it, and therefore there is no nexus to aging. While the degradation was indeed serious, its existence demonstrates no aging-related degradation. That said, it is nonetheless possible that there could be aging-related effects from corrosion caused by the atmosphere to which the liner is always subjected. However, Petitioners have not made such an argument, instead making only an oblique unsupported assertion that “wet conditions occurring over the past 12 years behind the epoxy coating can reasonably contribute to corrosion,”¹⁸ but offering no support for the proposition that wet conditions have indeed occurred over the past 12 years, and making no mention of the conditions to be expected going forward from the date of their petition or during the period of extended operation.

Even if we assume (which we are not permitted to do¹⁹), that Petitioners intended to make such an assertion for the period of extended operation, the fact that the proposition is wholly unsupported and therefore entirely speculative causes this contention to fail at the threshold — it fails to present any fact or expert opinion supporting the proposition that a corrosive environment would be present during the period of extended operation and therefore fails to raise any issue related to that period with the required specificity and support. I therefore conclude that the Petitioners' contention fails because — in the complete absence of information

¹⁵ See, e.g., NIRS Petition at 12-14.

¹⁶ AmerGen Answer to NIRS Petition at 21, 26-27.

¹⁷ *Turkey Point*, CLI-01-17, 54 NRC at 7.

¹⁸ NIRS Petition at 11.

¹⁹ *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-04-14, 60 NRC 40, 56 (2004); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 422 (2001); *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991).

suggesting that the steel liner would be subject to a corrosive environment in the future — the contention raises no issue relating to the detrimental effects of aging.

Noting my opinion that the contention has failed because it did not raise any issue within the scope of this proceeding, I am nonetheless compelled by the majority's analysis to address a secondary issue: if the petition had indeed raised an issue related to the "detrimental effects of aging,"²⁰ the contention would still be inadmissible unless it either (a) raised an issue that was not the subject of an ongoing regulatory oversight program, or (b) presented a colorable and supported argument that the ongoing regulatory oversight program was insufficient to manage the problem over the period of extended operation. Here the corrosion problem unique to this plant has been the subject of an ongoing regulatory oversight program for two decades, but Petitioners contend that the oversight program is insufficient. Thus, this contention, had it passed the threshold test, might have been interpreted to fall within the carve-out of clause (b) above. A careful examination of what Petitioners claim the deficiency to be reveals, however, that Petitioners' complaint makes no reasoned and supported argument that the ongoing regulatory program will be insufficient *during the period of extended operation*; instead, it challenges the methodology used by the licensee (and approved by the NRC Staff) to address the previous corrosion and to determine whether or not that corrosion has indeed been arrested. For this contention to relate to the period of extended operation, Petitioners would have had to argue and present support for the proposition that (a) the liner would be exposed to a corrosive environment in the period of extended operation, as discussed above, and (b) the ongoing regulatory program is insufficient to address the effects of this exposure. Petitioners' contention fails here for the same reason that it failed the threshold test: it simply fails to argue or support the necessary kernel of the issue — the future presence of a corrosive environment.

For the foregoing reasons, I dissent from the majority opinion to the extent it concludes that NIRS's contention is admissible.

²⁰ *Turkey Point*, CLI-01-17, 54 NRC at 7.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 50-271-OLA

**ENTERGY NUCLEAR VERMONT
YANKEE, LLC, and ENTERGY
NUCLEAR OPERATIONS, INC.
(Vermont Yankee Nuclear Power
Station)**

March 3, 2006

OPERATING LICENSE AMENDMENTS

IMMEDIATE EFFECTIVENESS

POWER UPRATE

A pending hearing does not delay a licensing decision. NRC regulations instruct the Staff “to issue its approval or denial of the application promptly” once it completes its own review of the application, notwithstanding the “pendency of any hearing.” 10 C.F.R. § 2.1202(a).

NO SIGNIFICANT HAZARDS DETERMINATION

After publishing its proposed findings for public comment, the Staff made a “no significant hazards consideration” finding and issued the power uprate amendment.

STAY OF EFFECTIVENESS

RULES OF PROCEDURE

The Intervenor's request did not meet NRC standards for a stay. Mere speculation concerning a nuclear accident does not demonstrate immediate and irreparable harm necessary for a stay.

DUE PROCESS

IMMEDIATE EFFECTIVENESS

An NRC Staff decision to grant a power uprate license amendment did not leave Intervenor's without "effective redress," because the license amendment can be revoked or conditioned after a full hearing if the Board determines the license amendment should not have been granted.

DUE PROCESS

Granting the license amendment prior to a Board decision did not circumvent Intervenor's right to a hearing. The Atomic Energy Act expressly authorizes the NRC to grant license amendments, and to make them immediately effective "in advance of the holding and completion of any required hearing," so long as the NRC determines that the amendment involves "no significant hazards consideration." *See* Atomic Energy Act § 189a(2)(A), 42 U.S.C. § 2239a(2)(A). *See also* 10 C.F.R. § 2.1202(a); 10 C.F.R. § 50.58(b)(6); 10 C.F.R. § 50.92.

MEMORANDUM AND ORDER

By this Order, we deny a request by the New England Coalition (NEC) — submitted in the form of a letter — that we prevent or stay issuance of an operating license amendment to Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (together, "Entergy"). NEC believes the license amendment should not be allowed to take effect until after completion of a pending adjudication before our Atomic Safety and Licensing Board. The amendment has in fact now issued (on March 2, 2006). It allows an increase in the maximum power at Entergy's Vermont Yankee Nuclear Power Station in Windham County, Vermont. NEC is an intervenor in the power uprate adjudication. The Licensing Board has not yet held a hearing on NEC's contentions.

NEC's request asks the Commission itself to "abstain" from issuing the license amendment until the Licensing Board finishes its adjudication. But it

is the NRC Staff, not the Commission, that considers applications for license amendments. Indeed, our regulations expressly instruct the Staff not to let pending hearings delay licensing decisions: the Staff is “to issue its approval or denial of the application promptly” once it completes its own review of the application, notwithstanding the “pendency of any hearing.”¹ And the Staff action on a licensing application is “effective upon issuance,” except (in the case of power reactor license amendments) where there are “significant hazards considerations.”² Here, following publishing of its proposed findings for public comment, the Staff made a “no significant hazards consideration” finding, and issued the power uprate amendment, on March 2, 2006, just 2 days after we received NEC’s letter asking “the Commission” to abstain from issuing the license.

The NEC’s argument is extremely general and it does not invoke any NRC regulation or case precedent. NEC says only that it will be denied “effective redress and due process” if the license amendment is granted now, because first there should be a full hearing on its contention that Vermont Yankee may not withstand natural phenomena, such as earthquakes, when operating under increased power.

Even if we were to give NEC’s request a generous construction and treat it as a request for invocation of our discretionary supervisory authority over the NRC Staff to stay the Staff’s issuance of the power uprate amendment, it would still be deficient.³ To obtain a stay, a party must meet four familiar standards: likelihood of success on the merits, irreparable harm, absence of harm to others, and the public interest.⁴ Irreparable harm is the most important of the four standards — the *sine qua non* of obtaining a stay.⁵ A party seeking a stay must show it faces imminent, irreparable harm that is both “certain and great.”⁶ NEC’s unproved speculation does not equate to irreparable harm. “Merely raising the specter of

¹ See 10 C.F.R. § 2.1202(a).

² *Id.*

³ See *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-7, 53 NRC 113, 118 (2001).

⁴ See 10 C.F.R. § 2.342(e) (standards for considering whether to stay presiding officer decisions). While technically not applicable to a request for a stay of NRC Staff action, the section 2.342(e) standards simply restate commonplace principles of equity universally followed when judicial (or quasi-judicial) bodies consider stays or other forms of temporary injunctive relief. See *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-90-3, 31 NRC 219, 257 (1990).

⁵ See *USA Recycling, Inc. v. Town of Babylon*, 66 F.3d 1272, 1295 (2d Cir. 1995). Accord *U.S. Department of Energy* (High-Level Waste Repository), CLI-05-27, 62 NRC 715, 718 (2005).

⁶ See, e.g., *Cuomo v. NRC*, 772 F.2d 972, 976 (D.C. Cir. 1985), quoting *Wisconsin Gas Co. v. Federal Energy Regulatory Commission*, 758 F.2d 669, 674 (D.C. Cir. 1985).

a nuclear accident'' does not demonstrate irreparable harm.⁷ And, contrary to NEC's view, an NRC Staff decision to grant Vermont Yankee's power uprate license amendment does not leave NEC without "effective redress." If the Board determines after full adjudication that the license amendment should not have been granted, it may be revoked (or conditioned).

NEC appears to believe that granting the license amendment prior to a Board decision bypasses NEC's right to a hearing. But the Atomic Energy Act expressly authorizes the NRC to grant license amendments, and to make them immediately effective "in advance of the holding and completion of any required hearing," so long as the NRC determines that the amendment involves "no significant hazards consideration":

The Commission may issue and make immediately effective any amendment to an operation license . . . upon a determination by the Commission that such amendment involves no significant hazards consideration, notwithstanding the pendency before the Commission of a request for a hearing from any person. Such amendment may be issued and made immediately effective in advance of the holding and completion of any required hearing.⁸

The other factors governing the grant or denial of stays also do not favor NEC's request. A party seeking a stay must show that it is likely to prevail on the merits of the dispute. NEC has not even addressed the substance of its merits claims in the adjudication, let alone shown it is likely to prevail. The final two factors are whether the relief would harm the other parties and where the public interest lies. NEC does not address these factors either. On the face of things, though, it would appear that delaying the license amendment, as NEC requests, would harm Entergy without any obvious benefit to the public interest.

NEC's request is denied.⁹

⁷ *Massachusetts Coalition of Citizens with Disabilities v. Civil Defense Agency*, 649 F.2d 71, 75 (1st Cir. 1981). *Accord Seabrook*, CLI-90-3, 31 NRC at 259; *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-84-5, 19 NRC 953, 964 (1984).

⁸ *See* Atomic Energy Act § 189a(2)(A), 42 U.S.C. § 2239a(2)(A). *See also* 10 C.F.R. § 2.1202(a); 10 C.F.R. § 50.58(b)(6); 10 C.F.R. § 50.92.

⁹ Nothing in today's decision should be understood as expressing our views on the validity of the amendment at issue here, as we may have to review it in our adjudicatory capacity after completion of Licensing Board proceedings.

IT IS SO ORDERED.

For the Commission¹⁰

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
This 3d day of March 2006.

Concurring Opinion by Commissioner Gregory B. Jaczko

My approval of today's decision should not be construed as agreement with the determination that this license amendment should be immediately effective. My concerns regarding this license amendment being immediately effective are being addressed in another forum.

¹⁰Chairman Diaz was not present when this item was affirmed. Accordingly, the formal vote of the Commission was 4-0 in favor of the decision. Chairman Diaz, however, had previously voted to approve this Order and had he been present he would have affirmed his prior vote.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

G. Paul Bollwerk, III, Chairman
Dr. Paul B. Abramson
Dr. Charles N. Kelber

In the Matter of

Docket No. 70-3103-ML
(ASLBP No. 04-826-01-ML)

LOUISIANA ENERGY SERVICES, L.P.
(National Enrichment Facility)

March 3, 2006

In this 10 C.F.R. Part 70 proceeding regarding the application of Louisiana Energy Services, L.P., for authorization to possess and use source, byproduct, and special nuclear material to enrich natural uranium by the gas centrifuge process at its planned National Enrichment Facility (NEF) to be built near Eunice, New Mexico, the Licensing Board rules in favor of the NRC Staff regarding portions of a National Environmental Policy Act (NEPA)-related environmental contention proffered by Intervenor Nuclear Information and Resource Service and Public Citizen that challenges the adequacy of the Staff's discussion in the Final Environmental Impact Statement (FEIS) of the environmental impacts of near-surface disposal of depleted uranium associated with the NEF.

NEPA: APPLICANT RESPONSIBILITIES; NRC RESPONSIBILITIES

NRC: RESPONSIBILITIES UNDER NEPA

NEPA, and the corresponding NRC regulations implementing the agency's responsibilities pursuant to that Act, *see* 42 U.S.C. §§ 4321 *et seq.*, 10 C.F.R. Part 51, require a license applicant to describe and the Staff to consider the potential environmental effects of the proposed agency action (i.e., issuance of a license).

NEPA: CEQ REGULATIONS

The Council on Environmental Quality (CEQ) has implemented regulations providing guidance on agency compliance with NEPA, which may help to direct the Staff's NEPA review. *See* 40 C.F.R. Part 1500. While the CEQ regulations are not binding on the NRC when the agency has not expressly adopted them, they are entitled to considerable deference. *See Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 725, 743 (3d Cir. 1989).

NEPA: ENVIRONMENTAL ANALYSIS (HARD LOOK); RULE OF REASON

As a general matter, NEPA imposes procedural restraints on agencies, requiring that they take a "hard look" at the environmental impacts of a proposed action and reasonable alternatives to that action. *See Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998). This "hard look" is subject to a "rule of reason" in that the agency's environmental review need only account for those impacts that have some likelihood of occurring or are reasonably foreseeable. *See, e.g., Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973).

NEPA: REMOTE AND SPECULATIVE EVENT; SCOPE OF ENVIRONMENTAL ANALYSIS (ESTIMATE OF ANTICIPATED IMPACTS)

Agencies have considerable discretion in determining the extent to which a particular subject is analyzed, *see Claiborne*, CLI-98-3, 47 NRC at 103, and may decline to examine "remote and speculative" or "inconsequentially small" impacts, *see Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989) (citing *Limerick Ecology Action*, 869 F.2d at 739). In the words of the Commission, "NEPA does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts." CLI-05-20, 62 NRC at 536 (emphasis in original).

NEPA: CONSIDERATION OF ALTERNATIVES (PREFERENCES OF PRIVATE APPLICANT)

When the agency reviews an application filed by a private entity, as opposed to a project initiated by the federal government, it may accord substantial weight to the applicant's preferences with regard to consideration of alternatives, including choices regarding site selection and project design. *See Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001)

(citing *Citizens Against Burlington v. Busey*, 938 F.2d 190, 197 (D.C. Cir. 1991)); *Claiborne*, CLI-98-3, 47 NRC at 104 (quoting *City of Grapevine v. Department of Transportation*, 17 F.3d 1502, 1506 (D.C. Cir. 1994)).

NEPA: SCOPE OF ENVIRONMENTAL ANALYSIS (DIRECT AND INDIRECT EFFECTS)

The CEQ regulations state that an agency environmental impact statement (EIS) must address both direct and indirect, or secondary, effects of an action. *See* 40 C.F.R. §§ 1502.16, 1508.8. Direct effects are those caused by, and occurring at the same time and place as, the federal action, while indirect effects are caused by the action at a later time or more distant place, yet still are reasonably foreseeable. *See id.* § 1508.8. An agency is not required to discuss indirect effects it considers remote or speculative. *See Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 551 (1978).

NEPA: ENVIRONMENTAL IMPACT STATEMENT (INCORPORATION BY REFERENCE; RELIANCE ON STATE REVIEW)

In conducting its environmental review, an agency has discretion to rely on data, analyses, or reports prepared by persons or entities other than agency staff, including competent and responsible state authorities. *See, e.g., Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), LBP-78-28, 8 NRC 281, 282 (1978). The Staff must, however, independently evaluate and take responsibility for the pertinent information before relying on it in an EIS. *See* 10 C.F.R. § 51.70(b). In other words, the Staff need not replicate the work done by another entity, but rather must independently review and find relevant and scientifically reasonable any outside reports or analyses on which it intends to rely.

NEPA: FINAL ENVIRONMENTAL IMPACT STATEMENT (LICENSING BOARD DECISION AS AMENDMENT); RECORD OF DECISION (LICENSING BOARD DECISION AS AMENDMENT)

NEPA and Part 51 require that a “record of decision” accompany any Commission decision on “any action for which a final environmental impact statement has been prepared.” 10 C.F.R. § 51.102(a). Typically under Part 51, the Staff prepares the record of decision on an action, *see id.* § 51.102(b), but when a hearing is held on the proposed action, the Licensing Board’s initial decision on that action constitutes the record of decision, *see id.* § 51.102(c). In addition, section 51.103(c) states that the record of decision may in fact incorporate by

reference any material contained in the relevant FEIS. Thus, the FEIS and Board initial decisions (and any subsequent final decision by the Commission) together form the record of decision in a contested proceeding. *See Claiborne*, CLI-98-3, 47 NRC at 89.

**NEPA: FINAL ENVIRONMENTAL IMPACT STATEMENT
(LICENSING BOARD DECISION AS AMENDMENT)**

When a Board decision supplements or differs from the findings of the Staff as set forth in its FEIS, the FEIS is deemed modified by the Board's decision to that extent. *See, e.g., HRI*, CLI-01-4, 53 NRC at 53; *see also* CLI-05-20, 62 NRC at 537 n.59 (“[a]ny Board ‘impacts’ findings will be added to the NEPA record of decision”).

REGULATIONS: INTERPRETATION (10 C.F.R. PART 61)

Part 61 of 10 C.F.R. sets forth the NRC's regulations for the disposal of low-level radioactive waste in a land disposal facility, including certain “performance objectives” and “technical requirements” that must be met before waste can be disposed of at a particular site. *See generally* 10 C.F.R. Part 61, Subparts C & D.

**ATOMIC ENERGY ACT: COOPERATION WITH STATES;
DELEGATION OF AUTHORITY TO STATES**

Although the Part 61 requirements are directed at the Staff, the Atomic Energy Act of 1954 (AEA), 42 U.S.C. §§ 2011 *et seq.*, permits the NRC to delegate certain regulatory authority to individual states. Specifically, AEA § 274 authorizes the Commission “to enter into agreements with the Governor of any State providing for discontinuance of the regulatory authority of the Commission” with respect to byproduct materials, source materials, and small quantities of special nuclear materials, including the disposal of such materials. *See id.* § 2021(b). Those “Agreement States” have the authority, for the duration of the agreement, “to regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards.” *Id.* Before it is granted authority to participate in the Agreement State program, a state must pass legislation establishing the authority for that state to conduct a radiation control program, and must further assume and implement that authority through the promulgation of state regulations. *See id.* § 2021(d), (o). At bottom, the state must show its willingness to assume regulatory responsibility for the materials covered by the proposed agreement under a regulatory regime that is equivalent to or more stringent than Part 61. *See id.* § 2021(d)(1), (o)(2).

**ATOMIC ENERGY ACT: COOPERATION WITH STATES;
DELEGATION OF AUTHORITY TO STATES (COMPATIBILITY
OF REGULATIONS)**

Section 274 also imposes certain requirements that the Commission must fulfill before it enters into an agreement with any state. Specifically, the Commission is required to find the state radiation control program “compatible” in certain respects with that of the NRC, and must further find that program “adequate to protect the public health and safety with respect to the materials covered by the proposed agreement.” 42 U.S.C. § 2021(d)(2). Among those regulations for which compatibility must be found are the performance objectives and technical requirements set forth in Subparts C and D, respectively, of the Part 61 regulations. *See* Office of State & Tribal Programs (STP), NRC, STP Procedure SA-200, Compatibility Categories and Health and Safety Identification for NRC Regulations and Other Program Elements (Oct. 8, 2004) at 6-7, App. A at 125-26 (ADAMS Accession No. ML042820600).

**ATOMIC ENERGY ACT: COOPERATION WITH STATES;
DELEGATION OF AUTHORITY TO STATES (RESPONSIBILITIES
OF NRC)**

Once the Commission and a state enter into an agreement pursuant to section 274, the NRC retains only oversight authority over the specific activities covered by the agreement, *see* 42 U.S.C. § 2021(j), while the Agreement State assumes all active regulatory authority with regard to those specified activities, *see id.* § 2021(b). In its oversight capacity, the NRC is required to conduct regular reviews of a state’s radiation control program, intended to ensure Agreement State programs remain compatible and provide adequate protection of public health and safety. The NRC further retains the power to terminate or suspend an agreement with any state under certain circumstances if it determines that such action is required to ensure public health and safety. *See id.* § 2021(j); *see also* Statement of Principles and Policy for the Agreement State Program; Policy Statement on Adequacy and Compatibility of Agreement State Programs (62 Fed. Reg. 46,517, 46,520-21 (Sept. 3, 1997)).

RULES OF PRACTICE: CONTENTIONS (AMENDMENT)

When an Intervenor’s challenges in an admitted contention are directed at a draft EIS because the FEIS has not yet been issued by the Staff, the contention can be construed as a challenge to the FEIS without the need for further modification. *See, e.g., Claiborne*, CLI-98-3, 47 NRC at 84 (Board appropriately deemed envi-

ronmental contentions based on applicant's environmental report as challenges to the FEIS).

REGULATIONS: INTERPRETATION (10 C.F.R. PART 61, SUBPARTS C & D)

Part 61 of 10 C.F.R. sets forth the licensing requirements for land disposal of low-level radioactive waste (LLRW). A "land disposal facility" includes any "land, building, and structures, and equipment which are intended to be used for the disposal of radioactive wastes," but does not include "geologic repository" disposal. 10 C.F.R. § 61.2. Subpart D of Part 61 sets forth the "technical requirements" for LLRW land disposal facilities, and "specif[ies] the minimum characteristics a disposal site must have to be acceptable for use as a near-surface disposal facility." *Id.* § 61.50(a). Part 61 defines a "near-surface disposal facility" as "a land disposal facility in which radioactive waste is disposed of in or within the upper 30 meters of the earth's surface." *Id.* § 61.2. A primary purpose of the Subpart D technical requirements is to ensure that the Subpart C performance objectives for a land disposal facility are met. *Id.* § 61.50(a). The Subpart C "performance objectives," in turn, must be met regardless of the classification of the waste involved, and are specifically intended to (1) protect the general public from releases of radioactivity, *id.* § 61.41; (2) protect individuals from inadvertent intrusion at any time after active institutional controls over a disposal site are removed, *id.* § 61.42; (3) protect individuals from radiation exposures during operation of a facility, *id.* § 61.43; and (4) ensure the long-term stability of the disposal site after closure, *id.* § 61.44.

REGULATIONS: INTERPRETATION (10 C.F.R. PART 61)

The determination about whether near-surface disposal is appropriate for a particular type of radioactive waste turns in large part on how that waste is classified. Section 61.55 of 10 C.F.R. sets forth a classification system for evaluating whether a particular LLRW can be disposed of in a near-surface facility based on the long-lived and/or short-lived radionuclides present in the waste. *See id.* § 61.55(a)(3)-(5), tbls. 1 & 2. Class A, B, and C wastes are generally appropriate for near-surface disposal, *see id.* § 61.55(a)(2)(i)-(iii), while wastes having a greater radioactivity than Class C, i.e., "greater than Class C" waste, are typically not appropriate for near-surface disposal, *see id.* § 61.55(a)(2)(iv). If a particular radioactive waste does not contain any of the radionuclides listed in that section, it is, by default, designated Class A waste. *See id.* § 61.55(a)(6).

REGULATIONS: INTERPRETATION (10 C.F.R. PART 61)

Part 61 contains flexibility to deal with the occurrence of new waste streams or disposal methods that were not included in the Part 61 rulemaking. Specifically, 10 C.F.R. § 61.58 states:

The Commission may, upon request or on its own initiative, authorize other provisions for the classification and characteristics of waste on a specific basis, if, after evaluation, of the specific characteristics of the waste, disposal site, and method of disposal, it finds reasonable assurance of compliance with the performance objectives in subpart C of this part.

REGULATIONS: INTERPRETATION (10 C.F.R. PART 61)

A distinction must be drawn between the particular classification of depleted uranium waste pursuant to 10 C.F.R. § 61.55(a), and the appropriateness of land disposal of that waste according to the Part 61 performance objectives. The appropriateness of near-surface disposal of large quantities of depleted uranium from an enrichment facility depends on whether such disposal would comply with the Part 61 performance objectives, and such compliance, in turn, depends on the specific characteristics of a particular disposal site, or, in the case of a generic analysis, assumptions regarding specific-site characteristics. In other words, some near-surface disposal facilities may not be capable of accepting large quantities of depleted uranium from enrichment operations, and dose pathway analyses should be performed on a site-specific basis to ensure compliance with Part 61, Subpart C.

LICENSING BOARDS: JURISDICTION (REGULATIONS OF OTHER AGENCIES)

RULES OF PRACTICE: CONTENTIONS (SCOPE OF PROCEEDING)

Compliance with regulations of other federal agencies, such as Environmental Protection Agency drinking water contamination limits, are issues beyond a Board's jurisdiction and outside the scope of the proceeding. *See Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-16, 48 NRC 119, 121-22 (1998) (licensing boards do not have jurisdiction over matters properly before other regulatory bodies).

REGULATIONS: INTERPRETATION (10 C.F.R. PART 61)

The Part 61 regulations establish dose limitations to protect members of the

public from releases of radioactivity from land disposal facilities. Specifically, 10 C.F.R. § 61.41 establishes whole body and organ dose limits, requiring that radioactive material released to the environment in ground or surface water, air, soil, plants, or animals “must not result in an annual dose exceeding an equivalent of 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ of any member of the public.” Section 61.42 refers to protection of the “inadvertent intruder,” and requires that “[d]esign, operation, and closure of the land disposal facility must ensure protection of any individual inadvertently intruding into the disposal site and occupying the site or contacting the waste at any time after active institutional controls over the disposal site are removed.” Taken together, then, the performance objectives for a near-surface disposal facility require that the relevant licensing entity examine whether, at any particular time after active institutional controls are removed, the section 61.41 dose limitations will be met for the inadvertent intruder.

**NEPA: ENVIRONMENTAL ANALYSIS (HARD LOOK;
RULE OF REASON)**

REGULATIONS: INTERPRETATION (10 C.F.R. PART 61)

Absent particular circumstances that provide a foundation for excluding intruder scenarios in evaluating compliance with the Part 61 regulations, intruder scenarios and intruder dose must be considered by the licensing entity at the time of initial licensing or any subsequent license amendment. Consideration and evaluation of intruder scenarios and related intruder dose would then be part of the “hard look” NEPA requires the Staff to take at the environmental impacts associated with a particular licensing action.

**NEPA: ENVIRONMENTAL ANALYSIS (HARD LOOK;
RULE OF REASON)**

The Staff is ultimately responsible for the work undertaken, or not undertaken, by its contractors; therefore, a Staff NEPA analysis is not necessarily insufficient if, in the face of a deficiency on the part of its contractor, a responsible Staff official has “stepped into the breach” and conducted the necessary review and analysis.

**NEPA: ENVIRONMENTAL ANALYSIS (HARD LOOK;
RULE OF REASON)**

In evaluating environmental impacts for NEPA purposes, it is appropriate for the Staff to make a determination that, because of the specific circumstances

under consideration, certain scenarios, such as Part 61 intruder scenarios, are so unlikely, i.e., so unduly speculative, as to fall outside the scope of the Staff's NEPA review. Such a determination is a proper exercise of NEPA's "rule of reason."

NEPA: ENVIRONMENTAL ANALYSIS (HARD LOOK; INDIRECT EFFECTS)

NEPA requires the Staff to take a hard look at all reasonably foreseeable environmental consequences of construction and operation of a proposed facility, including those secondary or indirect consequences of disposal of the waste generated by that facility. These secondary effects cannot, and need not for the purposes of satisfying the agency's NEPA obligation, *see* CLI-05-20, 62 NRC at 536, be examined with particularity when a specific disposal site has not yet been identified.

TECHNICAL ISSUE(S) DISCUSSED

The following technical issues are discussed: environmental impacts of land disposal of depleted uranium waste; low-level radioactive waste classification.

**SECOND PARTIAL INITIAL DECISION
(Environmental Impacts of Disposal of Depleted Uranium)**

I. INTRODUCTION

1.1 On December 12, 2003, Louisiana Energy Services, L.P. (LES), filed an application with the NRC seeking authority to construct and operate a uranium enrichment facility — designated the National Enrichment Facility (NEF) — near Eunice, New Mexico. This Second Partial Initial Decision presents the Licensing Board's findings of fact and conclusions of law relative to portions of an admitted environmental contention (EC) proffered by Intervenors Nuclear Information and Resource Service and Public Citizen (NIRS/PC) — NIRS/PC EC-4 — Impacts of Waste Storage and Disposal — which challenges the adequacy of the Final Environmental Impact Statement (FEIS) prepared by the NRC Staff in connection with the NEF application. Specifically, this Decision addresses those portions of contention EC-4 remanded to the Board by the Commission's decision in CLI-05-20, 62 NRC 523 (2005), concerning the adequacy of the Staff's discussion in the FEIS of the environmental impacts of near-surface disposal of depleted uranium (DU) associated with the NEF.

1.2 For the reasons set forth below, the Board finds that, in the face of a NIRS/PC challenge to the FEIS as reflected in that portion of contention NIRS/PC EC-4 concerning the Staff's analysis of the impacts of near-surface disposal remanded by the Commission in CLI-05-20, the Staff has, based on the record now before the Board, carried its burden of proof to demonstrate the adequacy of the FEIS in accordance with 10 C.F.R. §§ 2.325, 51.104. Thus, the Board concludes that the NIRS/PC claims in contention NIRS/PC EC-4, as remanded, regarding the sufficiency of the FEIS analysis of near-surface disposal impacts cannot be sustained.

II. PROCEDURAL BACKGROUND

2.1 This Licensing Board has discussed the procedural history of this proceeding on numerous occasions, including in the context of our first partial initial decision on environmental contentions, *see* LBP-05-13, 61 NRC 385, 392-402 (2005), and will not repeat that detailed discussion here.¹ Accordingly, we provide below a summary of this background, as well as a discussion of the developments with regard to EC-4 since the issuance of that first partial initial decision and, importantly, since the issuance of CLI-05-20, to provide context for this Second Partial Initial Decision.

2.2 Following LES's December 2003 submission of its application for a 30-year 10 C.F.R. Part 70 license to construct and operate the proposed NEF, on January 30, 2004, the Commission issued a notice of hearing and opportunity to intervene in the proceeding on the NEF application. *See* CLI-04-3, 59 NRC 10 (2004) (69 Fed. Reg. 5873 (Feb. 6, 2004)). Several entities responded by filing petitions to intervene pursuant to 10 C.F.R. § 2.309(a), including NIRS/PC.² *See* LBP-05-13, 61 NRC at 392. Following a Commission ruling that found NIRS/PC to have standing and so referred their intervention petition to the Licensing Board Panel for further consideration, this Licensing Board was constituted to preside

¹The Commission likewise discussed in some detail the "unusually complicated procedural history" of contention NIRS/PC EC-4 in its recent decision remanding an amended form of that contention to the Licensing Board for its further consideration and appropriate action. *See* CLI-05-20, 62 NRC at 525-33.

²Two state governmental entities, the New Mexico Environment Department (NMED) and the Attorney General of New Mexico (AGNM), also filed intervention petitions and were subsequently admitted as parties to this proceeding. *See* LBP-04-14, 60 NRC 40, 75 (2004). On August 12, 2005, the Board issued a memorandum and order that: (1) approved a settlement agreement between NMED, the AGNM, and LES; (2) dismissed those admitted contentions proffered by NMED or the AGNM; and (3) accepted the withdrawal of NMED and the AGNM from this proceeding. *See* Licensing Board Memorandum and Order (Approving Settlement Agreement and Accepting Withdrawal of Parties) (Aug. 12, 2005) at 7-8 (unpublished).

over the LES adjudicatory proceeding. *See id.* at 392-93. On June 15, 2004, the Board held a 1-day prehearing conference in Hobbs, New Mexico, during which the Petitioners, LES, and the Staff made oral presentations regarding the admissibility of each contention proffered by the Petitioners, *see id.* at 394, including contention NIRS/PC EC-4.

2.3 On July 19, 2004, the Board issued a memorandum and order admitting NIRS/PC as parties to the proceeding, finding they had proffered at least one admissible contention. *See* LBP-04-14, 60 NRC at 48. Among those contentions admitted by the Board was NIRS/PC EC-4 which, as originally admitted, contested the sufficiency of the LES Environmental Report (ER) for the NEF in that it allegedly failed to discuss the environmental impacts of the construction and operation of a deconversion plant for the depleted uranium hexafluoride (DUF₆) waste produced at the NEF. *See* LBP-05-13, 61 NRC at 395.

2.4 Thereafter, on October 20, 2004, NIRS/PC filed a motion to amend or supplement previously admitted contentions, including EC-4, based on certain additional information contained in the Staff's draft environmental impact statement (DEIS) for the NEF. *See* Motion on Behalf of [NIRS/PC] To Amend and Supplement Contentions (Oct. 20, 2004) [hereinafter October Contention Motion]. In a November 22, 2004 memorandum and order, the Board admitted in part the proffered amendment to EC-4. Specifically, the Board admitted that portion of the amendment alleging that the DEIS failed to discuss the environmental impacts of the construction and operation of a DUF₆ deconversion plant.³ The Board declined at that time, however, to admit a supplemental paragraph that it viewed as related to the issue of whether depleted uranium from an enrichment facility constitutes low-level waste, an issue then pending before the Commission in the context of a related contention, NIRS/PC EC-3/Technical Contention (TC)-1.⁴ *See* LBP-05-13, 61 NRC at 398, 400. In rejecting this latter part of the proffered amendment, however, the Board noted that the challenges appeared to rest on new information first revealed in the DEIS, sufficient to provide "good cause" for the

³ In the Board's first partial initial decision on environmental contentions, we decided NIRS/PC's challenges to the discussion of the environmental impacts of the construction and operation of a deconversion facility in the ER and DEIS in favor of LES and the Staff, respectively. *See* LBP-05-13, 61 NRC at 434-36. On November 21, 2005, the Commission declined NIRS/PC's petition for review of the remainder of the Board's decision relative to that contention. *See* CLI-05-28, 62 NRC 721, 726-31 (2005).

⁴ As the Commission noted in its decision remanding amended contention EC-4 to the Board, contentions EC-3/TC-1 and EC-4 once comprised a single two-part contention entitled "Waste Storage and Disposal." *See* CLI-05-20, 62 NRC at 525. Because each part of that contention raised substantially different issues, the Board separated those claims into two contentions, EC-3/TC-1, related to the issue of a "plausible strategy" for disposal, and EC-4, related solely to the discussion in LES's ER of the environmental impacts of deconversion of depleted uranium from the NEF. *See id.* (citing LBP-04-14, 60 NRC at 67-68).

late submission of that amendment such that the amendment was not precluded by its untimely filing. *See* Licensing Board Memorandum and Order (Ruling on Late-Filed Contentions) (Nov. 22, 2004) at 14-15 (unpublished) [hereinafter November Contention Ruling]. The Board further stated that it rejected that portion of the amendment “without prejudice to a renewed motion should the Commission hold that the Board should hear the waste classification issue relative to that contention.” *Id.* at 15.⁵

2.5 On January 18, 2005, the Commission issued a ruling on the Board-referred question of whether depleted uranium from a uranium enrichment facility could appropriately be categorized as low-level waste. *See* CLI-05-5, 61 NRC 22 (2005). The Commission concluded that depleted uranium is properly considered low-level waste, but also cautioned that “low-level radioactive waste can encompass both those wastes suitable for near-surface disposal and those that may require greater isolation.”⁶ *Id.* at 32. The Commission further noted that contentions challenging the waste disposal cost estimates set forth by LES were still pending before the Board, and that additional environmental or safety analysis might be required to resolve the issues raised by those contentions. *See id.* at 35.

2.6 Following the Commission’s January 2005 ruling on the low-level waste issue, on February 2, 2005, NIRS/PC filed with the Board a second motion for the admission of late-filed contentions in which they sought to amend and/or supplement three previously admitted contentions, including EC-4. *See* Motion on Behalf of Intervenors [NIRS/PC] for Admission of Late-Filed Contentions (Feb. 2, 2005) [hereinafter February Contention Motion]. With regard to EC-4, NIRS/PC referred to the Board’s previous statement concerning the possibility of a renewed contention amendment motion should the Commission rule the Board should hear the issue of the waste classification of depleted uranium, and averred that the Commission ruling in CLI-05-5 raised new information on which the proposed amendment to EC-4 appropriately was based. *See id.* at 1-5. Specifically, as relevant here, NIRS/PC again challenged the analysis in the DEIS of the environmental impacts of near-surface disposal methods, as well as the analysis of estimated doses from geologic disposal. *See id.* at 8, 9-12, 16-17. In addition, while the October 2004 motion by NIRS/PC had focused quite narrowly on three issues related to the impacts of depleted uranium disposal, this February

⁵In addition, to further clarify the scope of EC-4 as then admitted, the Board modified the title of the contention to delete the words “and Disposal.” *See* LBP-05-13, 61 NRC at 398.

⁶Indeed, the Commission emphasized that the only question before it was “whether depleted uranium is a low-level radioactive waste, not whether it meets one of the particular low-level waste classifications, or whether a near-surface disposal facility will be adequate.” *See* CLI-05-5, 61 NRC at 34.

motion presented numerous bases and claims touching on a wide range of new issues. *See* CLI-05-20, 62 NRC at 530.

2.7 In a May 3, 2005 ruling, the Board again declined to admit NIRS/PC's proposed amendment to their contention EC-4 relative to the environmental impacts of depleted uranium disposal. *See* Licensing Board Memorandum and Order (Ruling on NIRS/PC Late-Filed Contentions and Providing Administrative Directives) (May 3, 2005) at 9-11 (unpublished). Specifically, the Board found that the proffered amendment failed to meet both the standard for nontimely amendment of contentions and the general contention admissibility requirements set forth in 10 C.F.R. § 2.309(c) and 2.309(f), respectively, in that NIRS/PC did not demonstrate good cause for the untimely amendment and, in any event, raised issues outside the scope of the admitted contention and did not present sufficient factual or expert opinion support. *See id.* at 10-11.

2.8 During the time between NIRS/PC's February 2 motion and the Board's May 3 ruling on that motion, the Board held an evidentiary hearing in Hobbs, New Mexico, during which it took testimony and evidence from LES, NIRS/PC, and the Staff on the four admitted NIRS/PC environmental contentions, including the EC-4 challenges to the ER and DEIS discussions of the impacts of deconversion. *See* LBP-05-13, 61 NRC at 401-02; Tr. at 340-1692. On June 8, 2005, the Board issued its first partial initial decision regarding those environmental contentions. *See* LBP-05-13, 61 NRC 385. With regard to contention NIRS/PC EC-4, the Board found that NIRS/PC's challenges could not be sustained, in that the Staff's analysis in the DEIS "[met] the requirements of [the National Environmental Policy Act] in that it adequately discuss[ed] the environmental impacts of construction and lifetime operation of a conversion plant for the DUF₆ waste that is required in conjunction with the proposed enrichment plant." *Id.* at 436. Because the Board had previously declined to admit any further amendment to contention NIRS/PC EC-4, it noted in its decision that the ruling therein represented the Board's final determination regarding that contention. *See id.* at 402 n.3.

2.9 On June 23, 2005, NIRS/PC petitioned for Commission review of the Board's decision in LBP-05-13 with regard to each of the environmental contentions. *See* Petition on Behalf of [NIRS/PC] for Review of First Partial Initial Decision on Environmental Contentions (June 23, 2005). As relevant here, NIRS/PC submitted that "[t]he Board erred in refusing to allow NIRS/PC to show the environmental impacts of waste disposal" when the Board declined to admit the amendments to contention NIRS/PC EC-4 asserted by NIRS/PC in their October 2004 and February 2005 motions.⁷ *See id.* at 14.

⁷In their petition for review, NIRS/PC alleged six other Board errors with regard to its decision on environmental contentions, including two additional claims related to EC-4. On November 21, 2005, the Commission denied further review of those issues. *See* CLI-05-28, 62 NRC at 726-31.

2.10 While the NIRS/PC petition was pending before the Commission, the Board and the parties prepared for an evidentiary hearing, scheduled for October 24-28, 2005, regarding several NIRS/PC technical contentions. In preparation for that hearing, on September 15 and September 16, 2005, the Staff, LES, and NIRS/PC submitted to the Board prefiled direct testimony regarding the contested issues to be litigated at the October hearing.⁸ In response to the prefiled direct testimony of NIRS/PC witness Dr. Arjun Makhijani, LES and the Staff each filed motions in limine seeking to strike various portions of Dr. Makhijani's testimony. *See* Licensing Board Memorandum and Order (Ruling on In Limine Motions and Motion To Dismiss) (Oct. 4, 2005) at 1 (unpublished) [hereinafter First In Limine Ruling].⁹ On October 4, 2005, the Board issued a ruling granting the LES and Staff motions to strike certain portions of Dr. Makhijani's prefiled direct testimony to the degree the testimony fell outside the scope of the admitted NIRS/PC contentions at issue. *See id.* at 3-17.

2.11 Following the Board's October 4 ruling, LES and the Staff each filed a motion seeking to exclude certain exhibits purportedly associated with Dr. Makhijani's prefiled direct testimony, and subsequently filed in limine motions relative to Dr. Makhijani's prefiled rebuttal testimony, again seeking to exclude certain testimony and associated evidentiary materials. In an October 20, 2005 memorandum and order, the Board addressed the LES and Staff motions relative to the NIRS/PC prefiled exhibits and Dr. Makhijani's prefiled rebuttal testimony. With regard to the prefiled rebuttal testimony, the Board again granted the motions in part, finding that certain portions of Dr. Makhijani's testimony fell outside the scope of the contentions as admitted and/or the permissible scope of rebuttal testimony. *See* Licensing Board Memorandum and Order (Ruling on In Limine Motions Regarding Prefiled Exhibits and Rebuttal Testimony) (Oct. 20, 2005) at 2-7 (unpublished) [hereinafter Second In Limine Ruling]. With regard to the prefiled exhibits proffered in support of Dr. Makhijani's prefiled testimony, the Board essentially found that any exhibits not expressly cited in Dr. Makhijani's

⁸ While much of the prefiled testimony, and, accordingly, LES and Staff motions in limine relative to the NIRS/PC testimony, is irrelevant for purposes of this Second Partial Initial Decision, as the Board explains further below, some of the prefiled testimony does relate directly or peripherally to the issues now before the Board in the context of contention NIRS/PC EC-4.

⁹ In its motion, LES also included a renewed motion to dismiss in whole or in part certain admitted NIRS/PC contentions scheduled to be litigated at the October hearing. LES had previously sought, in an August 31, 2005 motion, to have dismissed and/or limit the scope of several admitted NIRS/PC contentions, a motion the Board found would more appropriately be framed as a motion in limine relative to NIRS/PC prefiled direct testimony or by a renewed motion to dismiss at the time such testimony was filed. *See* First In Limine Ruling at 2. The Board denied the renewed LES motion, finding dismissal of any contention or portion thereof improper in that even if the Board struck all NIRS/PC prefiled testimony relative to those contested issues, NIRS/PC could nonetheless seek to their case solely on the basis of cross-examination of LES and Staff witnesses. *See id.* at 3.

prefiled direct or rebuttal testimony would not be admitted in support of that testimony, though such a finding did not preclude the use of those as exhibits for cross-examination purposes or in support of oral surrebuttal testimony, as appropriate.¹⁰ *See id.* at 8-9.

2.12 Thereafter, a few days prior to the start of the evidentiary hearing, in an October 19, 2005 memorandum and order, the Commission determined that “the Board erred in not admitting for hearing an amended contention [NIRS/PC EC-4] on the environmental impacts of depleted uranium disposal,” CLI-05-20, 62 NRC at 524, and remanded certain “impacts”-related aspects of the amended contention to the Board for its consideration, *see id.* Specifically, the Commission directed the Board to consider the text and three bases of the amendment proffered by NIRS/PC in their October 2004 motion, as well as the February 2005 motion “to the extent that it raises or elaborates upon essentially the same ‘impacts’ analysis arguments made following the DEIS.” *Id.* at 532; *see also id.* at 533 n.49. The Commission further indicated its belief that, because the remanded issues regarding disposal impacts “substantially overlap those now before the Board as a part of NIRS/PC’s contentions challenging LES’s estimates of depleted uranium disposal costs,” which were scheduled to be litigated during the evidentiary hearing the following week, there would be no need for a stand-alone hearing on the issues raised by the remanded impacts contention.¹¹ *See id.* at 524.

2.13 On October 24-27, 2005, the Board held the scheduled evidentiary hearing on the subject of the remaining admitted NIRS/PC contentions. *See Tr.* at 1738-3179. Prior to taking any testimony or evidence, the Board discussed with the parties the scope of the Commission remand of contention NIRS/PC EC-4, as well as how the parties believed, as a procedural matter, litigation of contention NIRS/PC EC-4 should proceed, particularly given the Commission’s expressed belief that the remanded issues overlapped to a considerable degree the issues already before the Board. *See Tr.* at 1773-1814. While the parties differ in their interpretations of the scope of the Commission remand, an issue

¹⁰ In addition, with regard to two documents that NIRS/PC had previously sought to incorporate by reference into the prefiled testimony of Dr. Makhijani, the Board again emphasized that incorporation by reference of a document as purported testimony or evidence is not an acceptable practice, and that those documents should instead be specifically cited and relied on as evidentiary support for Dr. Makhijani’s prefiled testimony. *See Second In Limine Ruling* at 10.

¹¹ The Commission also stated, however, that if the Board found supplemental evidence necessary to fill any gaps remaining in the record following the conclusion of the October hearing, it could request such evidence from the parties. *See CLI-05-20, 62 NRC at 524.* Because the Board finds that the evidentiary hearing record now before it, in conjunction with the information submitted by the parties in support of the pending cross-motions for summary disposition, contains sufficient testimony and evidentiary material on which to make a determination regarding amended contention NIRS/PC EC-4 as remanded by the Commission, the Board sees no utility in requesting further supplemental evidence from the parties.

we address in Part III.B, *infra*, they essentially agreed that they were prepared to go forward and present testimony regarding the sufficiency of the Staff's review in the FEIS of the environmental impacts of near-surface disposal of depleted uranium from the NEF, *see* Tr. at 1789-98.¹² Accordingly, based on the Commission's guidance in CLI-05-20 and the parties' expressed belief that many, if not all, of the issues presented by the Commission remand could be litigated in the context of that October hearing, the parties presented supplemental oral testimony by their respective "disposal" witnesses/panels (originally proffered to testify on the subject of the plausibility and estimated cost of disposal) regarding the sufficiency of the Staff's analysis in the FEIS of the impacts of disposal of depleted uranium from the NEF, and conducted cross-examination of the other parties' witnesses. *See* Tr. at 2606-3083.

2.14 Following the conclusion of the October 2005 evidentiary hearing, NIRS/PC once again filed with the Board a motion for the admission of an amendment to contention NIRS/PC EC-4. *See* Motion on Behalf of Intervenors [NIRS/PC] for Admission of Supplemental and Additional Late-Filed Contentions Under 10 CFR 2.309(c) (Nov. 11, 2005). Specifically, NIRS/PC sought to add two paragraphs challenging the FEIS analysis of the impacts of waste disposal as insufficient, in that (1) the Staff failed to take a "hard look" at the impacts of near-surface disposal of large quantities of depleted uranium from an enrichment facility, and (2) the FEIS fails adequately to disclose the models and parameter values used in its analysis of the impacts of deep disposal, and the results of that analysis cannot be reproduced. *See id.* at 8-14. LES and the Staff filed responses to this motion on, respectively, November 28 and 29, 2005, each objecting to the admission of any additional amendment to contention NIRS/PC EC-4 on both timeliness and general admissibility grounds. *See* NRC Staff Response to Motion on Behalf of Intervenors [NIRS/PC] for Admission of Supplemental and Additional Late-Filed Contentions Under 10 C.F.R. § 2.309(c) (Nov. 29, 2005); [LES] Response to Intervenors' Supplemental and Additional Late-Filed Contentions (Nov. 28, 2005). The Board issues a separate decision today denying NIRS/PC's motion to amend contention EC-4. *See* Licensing Board Memorandum and Order (Ruling on Motion To Amend Contention NIRS/PC EC-4) (Mar. 3, 2006) (unpublished) [hereinafter Contention Amendment Ruling]. Accordingly,

¹² Counsel for the Staff did note that she was not prepared to say that the Staff could provide a complete evidentiary basis to support the Staff National Environmental Policy Act review relative to disposal impacts and that, therefore, the record of the hearing should be kept open following the conclusion of that week's hearing sessions in case a need for additional testimony and evidence on the substance of the Commission remand were to arise. *See* Tr. at 1793-94. Because the Board finds sufficient evidence on the record of this proceeding on which to resolve the substance of EC-4 as remanded by the Commission, Staff's concern in this regard is now a nonissue. With this Decision, however, we do close the evidentiary record regarding contention NIRS/PC EC-4.

the issues raised in that proposed amendment, to the extent they fall outside the scope of the amended contention admitted by the Commission in CLI-05-20, are not considered or addressed in the instant Partial Initial Decision.

2.15 While the November NIRS/PC motion to amend contention NIRS/PC EC-4 was pending before the Board, the Staff and NIRS/PC filed cross-motions for summary disposition of a portion of contention NIRS/PC EC-4 remanded by the Commission. *See* NRC Staff Motion for Summary Disposition (Nov. 18, 2005); Motion for Partial Summary Disposition Submitted on Behalf of Intervenors [NIRS/PC] (Nov. 18, 2005). In a footnote to its decision in CLI-05-20, the Commission indicated that, though it deemed admissible and was remanding to the Board for litigation a NIRS/PC challenge to the DEIS analysis of dose estimates for geologic disposal, it viewed the issue as “amenable to summary disposition.” *See* CLI-05-20, 62 NRC at 533 n.48. During the October evidentiary hearing, the Board indicated its agreement with the Commission that the geologic disposal impacts challenge could likely be relegated to summary disposition, *see, e.g.*, Tr. at 1817-18, 1823, and set resolution of this issue on a separate track. *See* Tr. at 3156-60; Licensing Board Order (Accepting Joint Report Proposals) (Nov. 9, 2005) at 1-2 (unpublished). The Board discusses the deep disposal impacts issues subject to summary disposition in a separate ruling issued today on the NIRS/PC and Staff summary disposition motions, in which the Board grants the Staff’s motion for summary disposition as to the remanded NIRS/PC challenge to the analysis in the DEIS/FEIS of the environmental impacts of geologic disposal. *See* LBP-06-9, 63 NRC 289 (2006).

2.16 Finally, on November 30, 2005, pursuant to 10 C.F.R. § 2.712 and the schedule set forth in an August 12, 2005 Board memorandum and order, *see* Licensing Board Memorandum and Order (Memorializing Results of Prehearing Conference) (Aug. 12, 2005) at 3 (unpublished), NIRS/PC, LES, and the Staff filed proposed findings of fact and conclusions of law regarding the NIRS/PC contentions litigated at the October hearing, including contention NIRS/PC EC-4 as remanded.¹³ *See* Proposed Findings of Fact and Conclusions of Law Submitted on Behalf of Intervenors [NIRS/PC] Based Upon Evidence Taken on October 24-27, 2005 (Nov. 30, 2005) [hereinafter NIRS/PC Proposed Findings]; [LES] Proposed Findings of Fact and Conclusions of Law Concerning Contentions NIRS/PC EC-3/TC-1, EC-5/TC-2, EC-6/TC-3, and EC-4 (as Remanded) (Nov. 30, 2005) [hereinafter LES Proposed Findings]; NRC Staff’s Proposed Finding of Fact and Conclusions of Law Concerning NIRS/PC Contentions [EC-3/TC-1], [EC-5/TC-2], [EC-6/TC-3], and [EC-4] (Nov. 30, 2005) [hereinafter Staff Proposed

¹³ On November 29, 2005, the Staff filed a motion requesting an extension of time to file proposed findings of fact and conclusions of law, based on a motion by LES to supplement the hearing record on two discrete cost issues. The Board denied that motion. *See* Licensing Board Order (Denying Filing Extension Motion) (Nov. 30, 2005) at 1 (unpublished).

Findings]. Each of the parties likewise filed reply findings of fact and conclusions of law in accordance with the schedule set by the Board, in which each responded to the proposed findings and conclusions proffered by the other parties. *See* [LES] Reply Findings of Fact and Conclusions of Law Concerning Contentions NIRS/PC EC-3/TC-1, EC-5/TC-2, EC-6/TC-3, and EC-4 (as Remanded) (Dec. 23, 2005); Reply Proposed Findings of Fact and Conclusions of Law Submitted on Behalf of Intervenors [NIRS/PC] Based Upon Evidence Taken on October 24-27, 2005 (Dec. 22, 2005); NRC Staff Reply Findings of Fact Concerning NIRS/PC Contentions [EC-3/TC-1], [EC-5/TC-2], [EC-6/TC-3], and [EC-4] (Dec. 22, 2005).

III. APPLICABLE LEGAL STANDARDS AND SCOPE OF CONTENTION NIRS/PC EC-4

A. Applicable Legal Standards and Regulatory Requirements

1. National Environmental Policy Act and 10 C.F.R. Part 51 Regulations

3.1 The contention at issue here arises under the National Environmental Policy Act (NEPA), and the NRC regulations implementing the agency's responsibilities pursuant to that Act. *See* 42 U.S.C. §§ 4321 *et seq.*; 10 C.F.R. Part 51. In short, NEPA and the corresponding agency regulations require a license applicant to describe and the Staff to consider the potential environmental effects of the proposed agency action (i.e., issuance of a license). Further, the Council on Environmental Quality (CEQ) has implemented regulations providing guidance on agency compliance with NEPA, which may help to direct the Staff's NEPA review. *See* 40 C.F.R. Part 1500.¹⁴ The Board described the requirements of NEPA and the agency's Part 51 regulations in some detail in its first partial initial decision on environmental contentions, *see* LBP-05-13, 61 NRC at 403-05, and will not provide a lengthy recitation here. Instead, a brief discussion of the pertinent NEPA principles provides a sufficient framework for the Board's decision.

3.2 As a general matter, NEPA imposes procedural restraints on agencies, requiring them to take a "hard look" at the environmental impacts of a proposed action and reasonable alternatives to that action. *See Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998). This "hard look" is subject to a "rule of reason" in that the agency's environmental review, rather than addressing every impact that could possibly result, need

¹⁴ While the CEQ regulations are not binding on the NRC when the agency has not expressly adopted them, the regulations are entitled to considerable deference. *See Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 725, 743 (3d Cir. 1989).

only account for those that have some likelihood of occurring or are reasonably foreseeable. See, e.g., *Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973). Agencies have considerable discretion in determining the extent to which a particular subject is analyzed, see *Claiborne*, CLI-98-3, 47 NRC at 103, and may decline to examine “remote and speculative” or “inconsequentially small” impacts, see *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989) (citing *Limerick Ecology Action*, 869 F.2d at 739). In the words of the Commission, “NEPA does not call for certainty or precision, but an estimate of anticipated (not unduly speculative) impacts.” CLI-05-20, 62 NRC at 536 (emphasis in original). Also in that vein, when reviewing an application filed by a private entity, as opposed to a federally sponsored project, the agency may accord substantial weight to the preferences of the applicant with regard to the consideration of alternatives, including choices regarding site selection and project design. See *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001) (citing *Citizens Against Burlington v. Busey*, 938 F.2d 190, 197 (D.C. Cir. 1991)); *Claiborne*, CLI-98-3, 47 NRC at 104 (quoting *City of Grapevine v. Department of Transportation*, 17 F.3d 1502, 1506 (D.C. Cir. 1994)).

3.3 In addition, the CEQ regulations state that an agency environmental impact statement (EIS) must address both direct and indirect, or secondary, effects of an action. See 40 C.F.R. §§ 1502.16, 1508.8. Direct effects are those caused by the federal action, and occurring at the same time and place as that action, while indirect effects are caused by the action at a later time or more distant place, yet still are reasonably foreseeable. See 40 C.F.R. § 1508.8. An agency is not, however, required to discuss any indirect effects it considers remote or speculative. See *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 551 (1978).

3.4 Finally, in conducting its environmental review, an agency may, in its discretion, rely on data, analyses, or reports prepared by persons or entities other than agency staff, including competent and responsible state authorities, see, e.g., *Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), LBP-78-28, 8 NRC 281, 282 (1978), provided, however, that the Staff independently evaluates and takes responsibility for the pertinent information before relying on it in an EIS, see 10 C.F.R. § 51.70(b). In other words, the Staff need not replicate the work completed by another entity, but rather must independently review and find relevant and scientifically reasonable any outside reports or analyses on which it intends to rely.

3.5 NEPA and Part 51 require that as a part of its environmental review the Staff prepare a “record of decision” to accompany any Commission decision on “any action for which a final environmental impact statement has been prepared.” 10 C.F.R. § 51.102(a). Typically under Part 51, the Staff prepares the record

of decision on an action, *see id.* § 51.102(b), but when a hearing is held on the proposed action, as here, the Licensing Board's initial decision on that action constitutes the record of decision, *see id.* § 51.102(c). Section 51.103(c) goes on to state that the record of decision may in fact incorporate by reference any material contained in the relevant FEIS. Thus, the FEIS and Board initial decisions (and any subsequent final decision by the Commission) together form the record of decision in a contested proceeding, such as the instant proceeding on the NEF application. *See Claiborne*, CLI-98-3, 47 NRC at 89. In addition, when a Board decision supplements or differs from the findings of the Staff as set forth in its FEIS, the FEIS is deemed modified by the decision to that extent. *See, e.g., HRI*, CLI-01-4, 53 NRC at 53. The Commission indicated as much here, noting in its October 2005 remand to the Board that "[a]ny Board 'impacts' findings will be added to the NEPA record of decision." CLI-05-20, 62 NRC at 537 n.59 (citing *HRI*, CLI-01-4, 53 NRC at 53).

2. 10 C.F.R. Part 61 Regulations and the NRC Agreement State Program

3.6 Part 61 sets forth the NRC's regulations for the disposal of low-level radioactive waste in a land disposal facility, including certain "performance objectives" and "technical requirements" that must be met before waste can be disposed of at a particular site. *See generally* 10 C.F.R. Part 61, Subparts C & D. The Part 61 requirements, as relevant here, are discussed in greater detail in Part III.B.1, *infra*.

3.7 Though in the strictest sense the Part 61 requirements provide direction to the Staff, the Atomic Energy Act of 1954 (AEA), 42 U.S.C. §§ 2011 *et seq.*, permits the NRC to delegate certain regulatory authority to individual states. Specifically, AEA § 274 authorizes the Commission "to enter into agreements with the Governor of any State providing for discontinuance of the regulatory authority of the Commission" with respect to byproduct materials, source materials, and small quantities of special nuclear materials, including the disposal of such materials. *See* 42 U.S.C. § 2021(b). Such "Agreement States" have the authority, for the duration of the agreement, "to regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards." *Id.* Before it can be authorized to participate in the Agreement State program, a state pursuing Agreement State status must pass legislation establishing the authority for that state to conduct a radiation control program, and must further assume and implement that authority through the promulgation of state regulations. *See id.* § 2021(d), (o). In essence, the state must demonstrate its willingness to assume regulatory responsibility for the materials covered by the proposed agreement under a regulatory regime that is equivalent to or more stringent than Part 61. *See id.* § 2021(d)(1), (o)(2).

3.8 Section 274 likewise imposes certain requirements on the Commission that must be met before it enters into an agreement with any state. Specifically, the Commission is required to find the state radiation control program “compatible” in certain respects with that of the NRC, and must further find that program “adequate to protect the public health and safety with respect to the materials covered by the proposed agreement.” *Id.* § 2021(d)(2). Importantly, among those regulations for which compatibility must be found are the performance objectives and technical requirements set forth in Subparts C and D, respectively, of the NRC’s Part 61 regulations. *See* Office of State & Tribal Programs (STP), NRC, STP Procedure SA-200, Compatibility Categories and Health and Safety Identification for NRC Regulations and Other Program Elements (Oct. 8, 2004) at 6-7, App. A at 125-26 (ADAMS Accession No. ML042820600). Once the Commission and a state enter into an agreement, the NRC retains oversight authority over the specific activities covered by the agreement, *see* 42 U.S.C. § 2021(j), while the Agreement State assumes all active regulatory authority with regard to those specified activities, *see id.* § 2021(b). As part of its oversight role, the NRC conducts regular reviews of a state’s radiation control program, intended to ensure Agreement State programs continue to be compatible and to provide adequate protection of public health and safety. The NRC further retains the power to terminate or suspend an agreement with any state under certain circumstances if it determines that such action is required to ensure public health and safety. *See id.* § 2021(j); *see also* Statement of Principles and Policy for the Agreement State Program; Policy Statement on Adequacy and Compatibility of Agreement State Programs (62 Fed. Reg. 46,517, 46,520-21 (Sept. 3, 1997)).

B. Scope of Commission Remand of Contention NIRS/PC EC-4

3.9 As noted above, several days prior to the October 2005 evidentiary hearing in this proceeding, the Commission remanded to the Board for its consideration an amendment to contention NIRS/PC EC-4 regarding the environmental impacts of disposal of depleted uranium from the NEF. *See* CLI-05-20, 62 NRC at 524. Specifically, the Commission directed the Board to consider three separate but related challenges raised by NIRS/PC in their October 2004 motion, and reiterated, though more opaquely, in a February 2005 NIRS/PC motion. The first, raised by paragraph A to the October 2004 proffered amendment, *see* October Contention Motion at 15, is the NIRS/PC claim that the Staff concluded in the DEIS that depleted uranium could be disposed of as Class A low-level waste, notwithstanding the fact that in adopting the agency’s waste classification regulations, the Commission did not include an environmental analysis of disposal of large quantities of depleted uranium, thereby requiring a further environmental analysis to determine whether near-surface disposal of DU was appropriate, or whether DU should more appropriately be disposed of similar to “greater

than Class C'' waste.¹⁵ See CLI-05-20, 62 NRC at 528, 530. Second, raised by paragraph B to the October amendment, see October Contention Motion at 15-16, was the NIRS/PC allegation that the DEIS failed to acknowledge repeated statements by the Commission expressing doubt or concern about the appropriateness of DU for near-surface disposal in that it would not meet the agency's Part 61 performance objectives for land disposal, but instead "simply assumed" near-surface disposal would be appropriate for DU from the NEF. See CLI-05-20, 62 NRC at 528, 530. Finally, in paragraph C to the October amendment, see October Contention Motion at 16, there is the NIRS/PC complaint that the DEIS did not specify the models or parameter values used for estimating radiological releases from geologic deep disposal sites, a deficiency that is not corrected by the DEIS suggestion that models associated with the FEIS issued in connection with the earlier LES application for the Claiborne Enrichment Center (CEC) were employed, given that the results were unlike those reported in the CEC FEIS.¹⁶ See CLI-05-20, 62 NRC at 528, 530-31.

¹⁵ A discussion of waste classification and associated disposal methods is set forth in Part III.B.1, *infra*.

¹⁶ In sum, the Commission remanded the following contention for the Board's consideration:

NIRS/PC EC-4 — IMPACTS OF WASTE STORAGE AND DISPOSAL

CONTENTION: The DEIS contains an incorrect analysis of the environmental impacts of the disposal of depleted uranium hexafluoride waste. The DEIS assumes that depleted uranium may be disposed of as low-level waste, which is incorrect. The DEIS fails to recognize the Commission's stated position that depleted uranium is not appropriate for near-surface disposal. The DEIS fails to support or explain the modeling of disposal of depleted uranium.

- (A) The DEIS states that depleted uranium may be disposed of as Class A low-level waste. (DEIS at 2-27, 2-31). This is erroneous, because the Commission has not ruled that depleted uranium constitutes low-level waste. It is also erroneous, because the Commission's adoption of 10 CFR Part 61 included no analysis of the environmental impact of disposal of depleted uranium as low-level waste, and the Commission could not lawfully decide that such disposal is permissible without undertaking a full environmental impact analysis. Further, NIRS/PC have previously explained, in support of contention NIRS/PC EC-3/TC-1, that depleted uranium should be managed and disposed of in accordance with rules applicable to Greater than Class C waste, not low-level waste.
- (B) The DEIS fails to recognize the Commission's repeatedly stated position that depleted uranium is not appropriate for near-surface disposal. The CEC Final EIS concluded that near-surface disposal of DU_3O_8 would not comply with 10 CFR Part 61 and suggested some form of deep disposal. (CEC Final EIS at 4-67). In 1995, during the scoping process for DOE's Programmatic EIS concerning long-term management of DU, NRC stated that large quantities of DU_3O_8 such as those derived from the DOE enrichment tailings inventory suggest the need for a unique disposal facility, such as a mined cavity or exhausted uranium mine. See

(Continued)

3.10 LES, the Staff, and NIRS/PC nonetheless differ in their respective interpretations of the scope of the Commission's CLI-05-20 remand.¹⁷ We address these differing interpretations below, as well as provide additional information about the scope of the matters before the Board resulting from recent developments in this proceeding.

1. Waste Classification of Depleted Uranium from Enrichment Facilities Under 10 C.F.R. § 61.55

3.11 Part 61 of 10 C.F.R. sets forth the licensing requirements for land disposal of low-level radioactive waste (LLRW). A "land disposal facility" effectively includes any "land, building, and structures, and equipment which are intended to be used for the disposal of radioactive wastes," but does not include "geologic repository" disposal. 10 C.F.R. § 61.2. As relevant here, Subparts C and D of Part 61 set forth, respectively, the "performance objectives" and "technical requirements" that must be met for LLRW land disposal facilities.

Croff, A.G., et al., Evaluation of the Acceptability of Potential Depleted Uranium Hexafluoride Conversion Products at the Envirocare Disposal Site, ORNL/TM-2000/355, at 12 (Dec. 2000). On October 18, 2000, in commenting on the DOE Roadmap for management of DU, the Commission stated that "[s]hallow land (near-surface) disposal was not a likely option because a generic performance assessment indicated the dose requirements of 10 CFR Part 61 could be exceeded by a wide margin." (Letter, E. Leeds, NRC, to Depleted Uranium Hexafluoride Management Program, DOE, Oct. 18, 2000). The DEIS for the NEF fails to account for the NRC's repeated positions on the subject of disposal of DU and simply assumes that disposal may occur at a near-surface site. An explanation of such a change in agency position is required.

- (C) The DEIS attempts to estimate the impact of disposal of depleted uranium from the NEF in its modeling of the releases expected from the site. (at 4-58, 4-59 and Table 4-19). The DEIS fails to disclose the models used or the parameter values. The text suggests that models used in analyzing the CEC site were used; however, the results are unlike any reported in connection with the CEC facility. Further, the model addresses only two hypothetical disposal sites and fails to examine any actual location of disposal. Performance of a disposal site is highly site-specific.

In addition, the Commission remanded for Board consideration paragraphs B(1), B(2), C, J, and K as presented in the February 2005 NIRS/PC motion, *see* February Contention Motion at 9-12, 16-17, to the extent those paragraphs legitimately amplify the text and paragraphs A, B, and C of the October motion.

¹⁷The parties do not disagree, however, that, while NIRS/PC's challenges in the October 2004 and February 2005 were directed at the DEIS since the FEIS had not yet been issued by the Staff, this contention can be construed as a challenge to the FEIS without the need for further modification. *See, e.g., Claiborne*, CLI-98-3, 47 NRC at 84 (Board appropriately deemed environmental contentions based on ER as challenges to FEIS).

See id. Part 61, Subparts C & D. For its part, Subpart D “specif[ies] the minimum characteristics a disposal site must have to be acceptable for use as a near-surface disposal facility.” *Id.* § 61.50(a). Near-surface disposal is a subset of land disposal, and a near-surface disposal facility is accordingly defined as “a land disposal facility in which radioactive waste is disposed of in or within the upper 30 meters of the earth’s surface.”¹⁸ *Id.* § 61.2. A primary purpose of the Subpart D technical requirements is to ensure that the Subpart C performance objectives for a land disposal facility are met. *Id.* § 61.50(a). The Subpart C performance objectives, in turn, must be met regardless of the classification of the waste involved, and are specifically intended to (1) protect the general public from releases of radioactivity, *id.* § 61.41; (2) protect individuals from inadvertent intrusion at any time after active institutional controls over a disposal site are removed, *id.* § 61.42; (3) protect individuals from radiation exposures during operation of a facility, *id.* § 61.43; and (4) ensure the long-term stability of the disposal site after closure, *id.* § 61.44.

3.12 Much of the Subpart D determination about whether near-surface disposal is appropriate for a particular type of radioactive waste turns on how that waste is classified. Section 61.55 sets forth a classification system for evaluating the propriety of near-surface disposal for particular wastes, as well as for determining appropriate waste forms and stability requirements. Specifically, section 61.55 calls for the classification of waste based on the long-lived and/or short-lived radionuclides present in the waste, as listed in Part 61, Tables 1 and 2, respectively. *See id.* § 61.55(a)(3)-(5), tbls. 1 & 2. Class A, B, and C wastes are generally appropriate for near-surface disposal, *see id.* § 61.55(a)(2)(i)-(iii), while wastes having a greater radioactivity than Class C, i.e., “greater than Class C” waste, are typically not appropriate for near-surface disposal, *see id.* § 61.55(a)(2)(iv). Finally, if a particular radioactive waste does not contain any of the radionuclides listed in Tables 1 and 2, it is, by default, designated Class A waste. *See id.* § 61.55(a)(6); *see also* Staff Exh. 47, at 2-28, 2-31 (NUREG-1790, “Final Environmental Impact Statement for the Proposed National Enrichment Facility in Lea County, New Mexico,” vols. 1 & 2 (June 2005)) [hereinafter NEF FEIS].

¹⁸The type of near-surface disposal contemplated by Subpart D has been referred to variously throughout the course of this proceeding as shallow land burial, shallow trench burial, and engineered-trench burial, among others, and these terms have been used seemingly interchangeably by the parties. Part 61 itself contemplates that “[n]ear-surface disposal includes disposal in engineered facilities which may be built totally or partially above-grade provided that such facilities have protective earthen covers,” and that “[b]urial deeper than 30 meters may also be satisfactory” provided that those disposal methods meet the specific technical requirements for near-surface disposal. *See* 10 C.F.R. § 61.7(a). For the purposes of this Decision the Board refers generally to “near-surface disposal,” and intends that term to describe, inclusively, any type of disposal that would meet the technical requirements for near-surface disposal under Part 61.

3.13 In its January 18, 2005 decision regarding the proper waste category determination for depleted uranium, the Commission found that depleted uranium “is appropriately categorized as a low-level radioactive waste.” CLI-05-5, 61 NRC at 34. None of the parties dispute that the Commission has so categorized the waste. The Commission declined at that time, however, to reach the issue of whether depleted uranium from the NEF would meet the Part 61 requirements for near-surface disposal.¹⁹ In fact, the Commission expressly stated that the only question it was addressing was “whether depleted uranium is a low-level radioactive waste, not whether it meets one of the particular low-level waste classifications, or whether a near-surface disposal facility will be adequate” for disposal of depleted uranium. *Id.* Thus, the question of the classification of depleted uranium, i.e., whether it should be classified as Class A, Class B, Class C, or otherwise, was not resolved by the Commission at that time, and remained an open question. Indeed, as the Commission made clear in CLI-05-20, it did not, at that time, “remand” this issue of classification, or any other waste disposal issue, to the Board for its consideration. *See* CLI-05-20, 62 NRC at 529.

3.14 The issue of the classification of depleted uranium waste nonetheless was brought to the forefront again in the context of CLI-05-20. In partially admitting the October 2004 amendment to contention NIRS/PC EC-4 proffered by NIRS/PC, the Commission noted NIRS/PC’s challenge to the Staff’s purported assumption in the DEIS that depleted uranium can be disposed of as Class A waste. *See id.* at 535. The parties dispute the meaning of this challenge, however, and therefore dispute the scope of the Commission’s remand in this regard.

3.15 The differing party interpretations of the Commission’s remand appear to be rooted in the fact that in CLI-05-20, in addition to remanding several issues for the Board’s consideration, the Commission also directed the Staff, “outside of this adjudication, to consider whether the quantities of depleted uranium at issue in the waste stream from uranium enrichment facilities warrant amending section 61.55(a)(6) or the section 61.55(a) waste classification tables,” *id.* at 536. The Commission further found that, because depleted uranium does not contain the radionuclides listed in the section 61.55(a) classification tables, “under a plain reading of the regulation” as currently in force, depleted uranium is a Class A waste. *See id.* at 535. Lastly, the Commission stated that “[d]espite section 61.55(a), we are permitting the NIRS/PC waste impacts contention to go forward because a formal waste classification finding is not necessary to resolve the disposal impacts contention, which at bottom goes to whether the impacts

¹⁹ As a related matter, the Commission directed that the parties, in their briefs regarding whether depleted uranium constitutes LLRW, address 10 C.F.R. § 61.55(a)(6), which, as noted above, states that “[i]f radioactive waste does not contain any nuclides listed in either Table 1 or 2, it is Class A.” Because the Commission reached a decision based on the relevant statutes, it did not address the issues surrounding section 61.55(a)(6) discussed in the parties’ briefs. *See* CLI-05-5, 61 NRC at 35 n.64.

of near-surface disposal have been adequately estimated or assessed for NEPA purposes.’’ *Id.* at 536.

3.16 Based on the foregoing language from the Commission, NIRS/PC would have the Board find, in essence, that the Commission instructed that no classification of the depleted uranium at issue has been made pursuant to 10 C.F.R. § 61.55, that the Board may not make such a classification finding in the context of this proceeding, and that, instead, additional NEPA analysis must be conducted before the depleted uranium from the NEF can be classified pursuant to section 61.55. *See* NIRS/PC Proposed Findings at 54-55. Indeed, following the Commission’s issuance of CLI-05-20, and prior to the start of the October evidentiary hearing, NIRS/PC filed a motion in limine seeking to exclude certain Staff and LES prefiled testimony as inadmissible and to have admitted certain prefiled testimony on behalf of NIRS/PC that the Board had previously stricken, averring that:

[s]ince a classification decision for depleted uranium from enrichment plants under 10 CFR Sec. 61.55 cannot be made, testimony in support of a classification of depleted uranium from an enrichment plant as Class A low-level radioactive waste should not be admitted, nor should testimony be admitted whose basis is the assumption that the depleted uranium from the proposed NEF is Class A and can therefore be disposed of in a shallow land burial facility.

Motion In Limine on Behalf of Intervenors [NIRS/PC] To Exclude Inadmissible Evidence and To Admit Relevant Evidence Under Ruling of Nuclear Regulatory Commission Dated October 19, 2005 (Oct. 21, 2005) at 3-4.²⁰ NIRS/PC have since repeatedly relied on this position that depleted uranium has not been and cannot be classified as Class A waste, or given any other classification under section 61.55, until a NEPA analysis has been conducted in support of a waste classification. *See, e.g.*, Tr. at 1775-77, 1811, 2672; NIRS/PC Proposed Findings at 54-55.

3.17 LES, on the other hand, takes the position that depleted uranium is undoubtedly Class A waste under the plain meaning of section 61.55(a), and that this question “is not an issue for this proceeding because the Commission has resolved the issue.” Tr. at 1779-80; *see also* Tr. at 1787-88, 1800, 2671, 2672, 2736-37, 2767-68; LES Proposed Findings at 26. In LES’s estimation, then, the issue for litigation is limited to whether disposal of depleted uranium from the NEF in a Class A container or facility would comport with the requirements of Part 61.

²⁰In response to this motion, the Board reinstated certain NIRS/PC testimony it had previously excluded, but declined to strike any of the LES or Staff testimony regarding classification of depleted uranium as Class A waste. *See* Tr. at 1820-23.

3.18 The Staff takes a position similar to that of LES. Specifically, the Staff asserts that depleted uranium is Class A waste under the provisions of Part 61, but that classification does not settle the inquiry because Part 61 also sets forth performance requirements, in terms of radiation dose, that must be met before near-surface disposal can be permitted pursuant to Part 61. *See* Tr. at 1760-61; *see also* Tr. at 1790-91, 1801-02; Staff Proposed Findings at 44-45.

3.19 As each of the parties' respective positions makes clear, a distinction must be drawn between the classification of depleted uranium waste, and the appropriateness of land disposal of that waste according to Part 61 performance standards. The Board declines to read contention NIRS/PC EC-4, as remanded by the Commission, as anything more than a challenge to the appropriateness of near-surface disposal of large quantities of depleted uranium from the NEF. As the Commission stated in CLI-05-20, and as NIRS/PC has repeatedly pointed out, it is not for this Board to make a waste classification in this proceeding. *See* CLI-05-20, 62 NRC at 536. In fact, such a classification ruling by this Board is entirely unnecessary because the Commission has unequivocally stated that, under a plain reading of section 61.55(a), depleted uranium is Class A waste. *See id.* at 535. The Board made repeated statements to that effect during the October evidentiary hearing, emphasizing that it was the Board's understanding that the Commission said in CLI-05-20 that under the current regulations depleted uranium is Class A waste. *See, e.g.,* Tr. at 1821-22, 2671-72. Further, the Commission made a point of noting that section 61.55(a)(6) does not make any exception for depleted uranium from enrichment facilities, that NIRS/PC did not seek a waiver of the application of that rule as permitted by 10 C.F.R. § 2.335, and that any attempt by NIRS/PC to use this adjudicatory proceeding to insert such an exception into that regulation is entirely misdirected. *See* CLI-05-20, 62 NRC at 536. Thus, a waiver of the existing regulatory requirements is not a matter before the Board, and we reject any implication by NIRS/PC that the Board should effectively waive the application of section 61.55(a)(6) relative to a determination about whether depleted uranium is Class A waste under the Part 61 regulations.

3.20 As the foregoing discussion makes clear, there is no need for the Board to make a waste classification determination with regard to large quantities of depleted uranium, and we decline to do so here. The Commission has stated unequivocally that depleted uranium is Class A waste under 10 C.F.R. § 61.55(a) as currently in force. Further, the questions of whether this determination is supported by a NEPA analysis, or whether this is indeed a proper classification

of depleted uranium, are not before the Board.²¹ Rather, based on the scope of the contention proffered by NIRS/PC, the only issue for the Board with regard to the radiological impacts of near-surface disposal of NEF-generated depleted uranium is whether, regardless of waste classification, “the impacts of near-surface disposal have been adequately estimated or assessed for NEPA purposes.” *See id.* In other words, the Board is to determine whether the Staff has taken the requisite “hard look” at the environmental impacts of near-surface disposal of large quantities of depleted uranium from the NEF.

2. Board Rulings on Cross-Motions for Partial Summary Disposition of Contention NIRS/PC EC-4 and NIRS/PC Motion To Amend Contention

3.21 As was also noted above, in its remand of an amended contention NIRS/PC EC-4, the Commission indicated that the Board should give further consideration to the matter of the environmental impacts of deep disposal of depleted uranium, suggesting that this aspect of the contention might be subject to summary disposition. *See id.* at 533 nn.48-49. Cross-motions for summary disposition were filed by both the Staff and NIRS/PC, along with a NIRS/PC request to amend contention NIRS/PC EC-4 regarding both near-surface disposal and deep disposal impacts concerns associated with the NEF FEIS. As is described in more detail in the Board’s rulings on those matters, we find the Staff’s motion dispositive of the deep disposal impacts aspects of remanded contention NIRS/PC EC-4, *see* LBP-06-9, 63 NRC at 312-13, and dismiss the additional NIRS/PC attempt to amend this contention as both untimely and inadequate to meet the contention admissibility standards, *see* Contention Amendment Ruling at 16-17, in part because of the findings we make below.

3.22 Based on the foregoing discussion, that portion of paragraph A that asserts that the Commission has not ruled that depleted uranium is low-level waste and paragraph C in its entirety have been decided on the merits, and accordingly are not before the Board here. With these determinations in hand, the Board addresses below the remaining challenges by NIRS/PC to the adequacy of the Staff’s analysis in the FEIS of the impacts of near-surface disposal of large quantities of depleted uranium.²²

²¹ As the Commission indicated in CLI-05-20, 62 NRC at 536, if there is to be any change in the classification status of the quantities of depleted uranium at issue in the waste stream from uranium enrichment facilities, that will come in the context of a Staff rulemaking-related review of that matter.

²² As is apparent from our rulings today regarding the adequacy of the Staff’s NEPA analysis of the impacts of near-surface disposal and the NIRS/PC challenges to the Staff’s assessment of the impacts of deep disposal, the Staff has analyzed the environmental impacts of both depleted uranium disposal

(Continued)

IV. FACTUAL FINDINGS AND LEGAL CONCLUSIONS REGARDING CONTENTION NIRS/PC EC-4

4.1 Based on the Board's discussion regarding the scope of amended contention EC-4 as remanded to the Board by the Commission, as well as the Board rulings issued today addressing NIRS/PC's November 2005 motion to amend contention EC-4 and cross-motions for summary disposition by the Staff and NIRS/PC relative to the deep disposal impacts issue remanded by the Commission, the portion of the admitted contention left for the Board to address here provides in pertinent part:²³

NIRS/PC EC-4 — Impacts of Waste Storage and Disposal²⁴

CONTENTION: The FEIS contains an incorrect analysis of the environmental impacts of the disposal of depleted uranium hexafluoride waste. The FEIS assumes that depleted uranium may be disposed of as low-level waste, which is incorrect. The FEIS fails to recognize the Commission's stated position that depleted uranium is not appropriate for near-surface disposal.

- (A) The FEIS states that depleted uranium may be disposed of as Class A low-level waste. This is erroneous, because the Commission's adoption of 10 CFR Part 61 included no analysis of the environmental impact of disposal of depleted uranium as low-level waste, and the Commission could not lawfully decide that such disposal is permissible without undertaking a full environmental impact analysis. Further, NIRS/PC have previously explained, in support of contention NIRS/PC EC-3/TC-1, that depleted uranium should be managed and disposed of in accordance with rules applicable to Greater than Class C waste, not low-level waste.

options. As such, we need not resolve now the question of whether deep geologic disposal should be mandated for the NEF depleted uranium, an issue we will address when we rule on the question of the cost of disposal relative to contentions NIRS/PC EC-5/TC-2 and EC-6/TC-3.

²³Based on the Board's rulings discussed in Part III.B, *supra*, the following text has not been included in this restatement of remanded contention NIRS/PC EC-4: (1) in the text of the contention, the sentence that reads "[t]he DEIS fails to support or explain the modeling of disposal of depleted uranium"; (2) in paragraph A, the sentence that reads "[t]his is erroneous, because the Commission has not ruled that depleted uranium constitutes low-level waste"; and (3) paragraph C to the remanded contention, in its entirety. In addition, to the extent that paragraph K from the February 2005 NIRS/PC motion might have supported the NIRS/PC claim that the Staff's EIS failed to support or explain the modeling for disposal impacts, the Board has not considered that claim in this decision regarding contention NIRS/PC EC-4.

²⁴Although the Board modified the title of this contention by deleting the words "and Disposal" from that title in its November 22, 2004 ruling on late-filed contentions, *see supra* note 5, based on the Commission remand, and the fact that contention NIRS/PC EC-4 now contains challenges related to the disposal of depleted uranium, we reinstate the original title of this contention.

- (B) The FEIS fails to recognize the Commission's repeatedly stated position that depleted uranium is not appropriate for near-surface disposal. The CEC Final EIS concluded that near-surface disposal of DU_3O_8 would not comply with 10 CFR Part 61 and suggested some form of deep disposal. (CEC Final EIS at 4-67). In 1995, during the scoping process for [the Department of Energy's (DOE)] Programmatic EIS concerning long-term management of DU, NRC stated that large quantities of DU_3O_8 such as those derived from the DOE enrichment tailings inventory suggest the need for a unique disposal facility, such as a mined cavity or exhausted uranium mine. See Croff, A.G., et al., Evaluation of the Acceptability of Potential Depleted Uranium Hexafluoride Conversion Products at the Envirocare Disposal Site, ORNL/TM-2000/355, at 12 (Dec. 2000). On October 18, 2000, in commenting on the DOE Roadmap for management of DU, the Commission stated that "[s]hallow land (near-surface) disposal was not a likely option because a generic performance assessment indicated the dose requirements of 10 CFR Part 61 could be exceeded by a wide margin." (Letter, E. Leeds, NRC, to Depleted Uranium Hexafluoride Management Program, DOE, Oct. 18, 2000). The FEIS for the NEF fails to account for the NRC's repeated positions on the subject of disposal of DU and simply assumes that disposal may occur at a near-surface site. An explanation of such a change in agency position is required.²⁵

A. Witnesses and Evidence Presented

4.2 As mentioned briefly above, *see supra* p. 255, the Commission remanded contention NIRS/PC EC-4 to the Board only a few days prior to the scheduled evidentiary hearing on the remaining contested issues in this proceeding with the guidance that, at least with respect to near-surface disposal impacts, the NEPA issues raised by EC-4 "substantially overlap" those being addressed in the context of NIRS/PC's challenges to LES's cost estimates for disposal of depleted uranium. After consulting with the parties, the Board did not take written direct or rebuttal testimony from the parties relative to the issues remanded in connection with amended contention NIRS/PC EC-4. Rather, the Board and the parties agreed that the parties would litigate the issues raised by amended contention NIRS/PC EC-4 to the extent possible through oral testimony (in the form of redirect/surrebuttal and cross-examination) by their respective witnesses/witness panels scheduled to testify on the topic of the plausibility and estimated cost of

²⁵ As the Commission directed in its remand of this contention, the Board focuses on the terms and bases proffered in connection with the October 2004 NIRS/PC motion to amend contention NIRS/PC EC-4. To the extent that paragraphs B(1), B(2), C, and J as presented in the February 2005 NIRS/PC motion legitimately amplify the text and bases of the first motion, *see* February Contention Motion at 9-12, 16-17, the Board has considered those bases in reaching the instant decision on amended contention NIRS/PC EC-4.

depleted uranium disposal. *See* Tr. at 1789-98. Accordingly, the oral testimony elicited from the respective party witnesses dealt directly with the adequacy of the Staff's discussion of near-surface disposal of depleted uranium in the FEIS.

4.3 LES presented testimony by a panel of two witnesses on the issue of the impacts of disposal of depleted uranium from the NEF: (1) Rod Krich, Vice President of Licensing, Safety, and Nuclear Engineering for LES; and (2) Thomas E. Potter, an independent Radiation Protection Consultant. Mr. Krich previously testified before the Board in the context of our February 2005 evidentiary hearing on environmental contentions, and his qualifications are outlined in the Board's partial initial decision on those contentions. *See* LBP-05-13, 61 NRC at 420-21. Mr. Potter holds a Bachelor of Science in Chemistry from the University of Pittsburgh, a Master of Science in Environmental Science (Radiation Protection focus) from the University of Michigan, and has more than 30 years of professional experience in the area of radiation protection. Specifically, he has experience in the areas of health physics, waste management, and environmental issues surrounding the handling and processing of uranium, trans-uranium, fission and activation product radionuclides, and decommissioning of facilities used for processing those radionuclides, including waste classification evaluations and radiological dose assessments for operations and decommissioning actions. In his capacity as an independent consultant, Mr. Potter provides technical advice to the NRC and Agreement States materials licensees on a range of radiation protection issues, including radiation assessments associated with operations and decommissioning, the formulation of licensee positions and comments on proposed radiation protection regulations, and plans to implement 10 C.F.R. Part 20. *See* Prefiled Direct Testimony of Rod Krich and Thomas Potter on Behalf of [LES] Regarding Applicant's Strategy and Cost Estimate for the Private Sector Disposal of Depleted Uranium from the Proposed [NEF] (fol. Tr. at 2607) at 3-4 & attached resume [hereinafter LES Disposal Direct Testimony].

4.4 For its part, the Staff presented a panel of five witnesses: (1) Timothy C. Johnson, NRC Project Manager for the licensing of the proposed NEF; (2) James Park, NRC Project Manager for the environmental review of the NEF license application; (3) Jennifer Mayer, consultant for ICF Consulting, providing testimony under a technical assistance contract with the NRC; (4) Craig Dean, consultant for ICF Consulting, providing testimony under a technical assistance contract with the NRC; and (5) Donald Palmrose, employee of Advanced Systems Technology and Management, Inc., providing testimony under a technical assistance contract with NRC. Dr. Palmrose previously provided testimony before the Board in the context of the February 2005 hearing on environmental contentions, and his qualifications are outlined in the Board's partial initial decision on those contentions. *See* LBP-05-13, 61 NRC at 427-28.

4.5 Timothy C. Johnson has a Bachelor of Science in Mechanical Engineering from Worcester Polytechnic Institute and a Master of Science in Nuclear

Engineering from Ohio State University. Mr. Johnson has more than 30 years of professional experience as an engineer, and has been employed by the NRC since 1977 in the areas of radioactive waste management, decommissioning, and fuel cycle facility licensing. His duties at the NRC have included responsibility for the waste form performance aspects of low-level radioactive wastes and coordinating the development of waste form and waste classification requirements, including preparing the appropriate sections for the low-level waste management regulation of 10 C.F.R. Part 61, the draft and final EISs that support Part 61, and the technical positions on waste form and waste classification that provide guidance to waste generators for complying with the Part 61 requirements. As the Project Manager overseeing the licensing of the proposed NEF, Mr. Johnson's responsibilities include coordinating the review of the NEF application, as well as the preparation of the Safety Evaluation Report (SER) for the NEF, including the chapter on decommissioning the NEF. In his review of the application, Mr. Johnson focused on the decommissioning funding and waste management aspects of the proposed facility. *See* NRC Staff Testimony Regarding Disposal (fol. Tr. at 2831) at 1-2 & attached resume [hereinafter Staff Disposal Direct Testimony].

4.6 James Park holds a Bachelor of Science in Geology from Virginia Polytechnic & State University and a Master of Science in Structural Geology and Rock Mechanics from Imperial College at the University of London. He has more than 10 years of experience at the NRC, including preparing and reviewing environmental assessments and EISs on various aspects of the nuclear fuel cycle. As Project Manager for the environmental review of the NEF application, Mr. Park was responsible for overseeing the preparation of the FEIS for the NEF, including the chapters on alternatives and environmental impacts. *See id.* at 1, 2-3 & attached resume.

4.7 As a consultant with ICF Consulting, Jennifer Mayer assisted the NRC Staff in evaluating LES's proposed decommissioning funding plan for the NEF and was the principal author of the sections of the SER addressing decommissioning costs. Ms. Mayer received a Bachelor of Science in Chemical Engineering from Bucknell University, and has over 13 years of experience in cost-benefit analyses and cost modeling, including preparing cost estimates for cleanup for license terminations and a cost-benefit analysis for the generic EIS for the NRC's clearance rule, regarding the regulatory approaches for control of solid materials. *See id.* at 1, 3 & attached resume.

4.8 Craig Dean holds a Bachelor of Arts in History from Carleton College, a Master of Arts in Russian Studies from Columbia University, and a Juris Doctor from Georgetown University Law Center, and has completed graduate coursework in Economics and Statistics at American University. As an employee of ICF Consulting, he has provided support to the NRC in analysis of financial assurance submissions, evaluation of financial assurance issues, development of guidance documents, and delivery of training on financial assurance, licensing

reviews, and enforcement. Mr. Dean is the manager responsible for the technical support provided to the Staff by ICF Consulting in evaluating the financial assurance provisions in LES's decommissioning funding plan for the NEF. In this capacity, he was the principal evaluator of the financial assurance instruments and assessment of the adequacy of the contingency factor applied to the LES cost estimates. *See id.* at 1, 3 & attached resume.

4.9 NIRS/PC presented one witness, Arjun Makhijani, President and Senior Engineer at the Institute for Energy and Environmental Research, an organization that assesses environmental damage from the operation of nuclear fuel facilities, and estimates facility compliance with environmental regulations, primarily relating to radioactive materials and wastes and radioactivity exposures. Dr. Makhijani previously provided testimony before the Board in the context of the February 2005 hearing on environmental contentions, and his qualifications are outlined in the Board's partial initial decision on those contentions. *See* LBP-05-13, 61 NRC at 428.

4.10 Though none of these party witnesses was expressly proffered as an expert on the matters remanded to the Board in the context of EC-4, based on the respective qualifications presented in their written testimony on the plausibility and cost estimates for disposal, the Board finds that each of the LES, Staff, and NIRS/PC witnesses is qualified as an expert on the environmental impacts of disposal of depleted uranium from the NEF for the purposes of this proceeding.²⁶

4.11 Based on the limited scope of the issues before the Board, and the additional record evidence elicited at the October 2005 hearing, the Board does not believe further testimony from the parties on the issue of near-surface disposal impacts would be useful in reaching our findings on this matter, and we therefore resolve these issues on the record now before the Board.

B. NRC Position as to the Appropriateness of Near-Surface Disposal of Depleted Uranium (Paragraph B)

4.12 Because resolution of the issues raised by paragraph B of amended contention NIRS/PC EC-4 provides a solid foundation for the Board's consideration of the more complex challenges at issue in paragraph A, we treat these claims in reverse order.

4.13 In paragraph B of its remanded contention, NIRS/PC challenge the alleged failure of the FEIS "to recognize the Commission's repeatedly stated

²⁶ In this regard, the Board found in the context of the February 2005 evidentiary hearing that Mr. Krich, Dr. Palmrose, and Dr. Makhijani were each qualified to testify as expert witnesses on the subject of the impacts of the construction and operation of a deconversion plant for depleted uranium waste associated with the NEF raised by NIRS/PC's challenge in contention NIRS/PC EC-4 (i.e., impacts of waste storage). *See* LBP-05-13, 61 NRC at 427-28.

position that depleted uranium is not appropriate for near-surface disposal,” in that it “simply assumes” that near-surface disposal is appropriate, and that an explanation is required for this change in agency position. *See* October Contention Motion at 13, 15-16. In support of this challenge, Dr. Makhijani testified that numerous NRC and Department of Energy (DOE) statements and reports concluded that additional environmental review would be required before a determination of the appropriateness of near-surface disposal could be made. *See* Revised Direct Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES’s Disposal Strategy and Cost Estimate (fol. Tr. at 2968) at 10-15 [hereinafter NIRS/PC Disposal Direct Testimony]. He further posits that the Staff, in the NEF DEIS, took a “somewhat more nuanced position,” stating that additional environmental analysis could be necessary prior to final disposal of large quantities of depleted uranium. *See id.* at 13-14.

4.14 Dr. Makhijani did not, however, present any testimony or evidence that demonstrates the agency has ever taken such an absolute stance on the appropriateness of near-surface disposal of large quantities of depleted uranium, and certainly not any testimony that rises to the level of a “stated [Commission] position that depleted uranium is not appropriate for near-surface disposal” as NIRS/PC asserts in its remanded contention, *see* October Contention Motion at 13. More accurately, as Mr. Johnson’s oral testimony on this matter reflects, the Staff has consistently taken the position that “some near-surface disposal facilities may not be suitable for large quantities of depleted uranium from enrichment operations,” and that pathway analysis should be performed on a site-specific basis to ensure compliance with Part 61, Subpart C. *See* Tr. at 2836.

4.15 Witnesses for the Staff and NIRS/PC both testified about the history of the agency’s position on the issue of disposal of large quantities of depleted uranium. As Mr. Johnson explained during the hearing, the NRC’s Part 61 regulations were developed based on an exposure pathway analysis (e.g., intruder agriculture) that applied the proposed Part 61 requirements to a series of reference sites to determine whether, as applied to those particular reference sites, land disposal would meet the performance objectives of now-Subpart C. *See* Tr. at 2834-35. Though such an analysis with regard to large quantities of depleted uranium was included in the proposed rule for Part 61, as Dr. Makhijani noted in his testimony, the final rule and supporting EIS did not include an analysis of, or requirements for, depleted uranium from enrichment operations because, at that time, no commercial source possessed large quantities of depleted uranium. *See* NIRS/PC Disposal Direct Testimony at 11. In 1991, however, in anticipation of a license application from LES to construct a uranium enrichment facility in Claiborne Parish, Louisiana, the NRC’s Executive Director of Operations (EDO) issued a policy statement concluding that depleted uranium could be disposed of as low-level waste, but that “analysis of the disposal of depleted uranium tails

from an enrichment facility at a Part 61 [low-level waste] disposal facility should be conducted similar to the pathway analyses conducted in support of Part 61.’’ See NIRS/PC Exh. 193, encl. at 4 (Memorandum from J.M. Taylor, NRC EDO, to NRC Commissioners, regarding Disposition of Depleted Uranium Tails from Enrichment Plants (Jan. 25, 1991)).

4.16 Mr. Johnson testified for the Staff that such an analysis was just what the NRC contemplated when it included section 61.58 in the Part 61 rulemaking. Specifically, Mr. Johnson noted that the drafters of Part 61 anticipated that new waste streams or disposal methods might become relevant in the future, and left flexibility in Part 61 to deal with such occurrences. Section 61.58 states:

The Commission may, upon request or on its own initiative, authorize other provisions for the classification and characteristics of waste on a specific basis, if, after evaluation, of the specific characteristics of the waste, disposal site, and method of disposal, it finds reasonable assurance of compliance with the performance objectives in subpart C of this part.

10 C.F.R. § 61.58. In his testimony on this issue, Dr. Makhijani likewise relies on section 61.58 in concluding that compliance with the Subpart C performance objectives is the ultimate consideration in determining the suitability of depleted uranium disposal in a near-surface facility. See Revised Rebuttal Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES’s Disposal Strategy and Cost Estimate at 3-5 (fol. Tr. at 2968).

4.17 Dr. Makhijani cited several examples that allegedly support the NIRS/PC proposition that the Staff repeatedly has taken the position that depleted uranium should not be disposed of in near-surface facilities. For example, he first referred to analyses done in connection with the LES license application to construct and operate the CEC facility in Louisiana, noting that a 1992 report prepared for the Staff concluded that “further analysis is necessary to demonstrate whether the disposal of this material in a 10 CFR [Part] 61 disposal facility will be acceptable in terms of public health and safety.” See NIRS/PC Disposal Direct Testimony at 12 (quoting NIRS/PC Exh. 128, at 1 (M. Kozak et al., Sandia National Laboratories, Cover Letter & Final Report, Performance Assessment of the Proposed Disposal of Depleted Uranium as Class A Low-Level Waste (Dec. 16, 1992)) [hereinafter Kozak Report]). Dr. Makhijani also referred to EISs published in connection with the management of large amounts of depleted uranium currently stored at three DOE facilities, in which DOE stated that it would “decide the specific disposal location(s) for the depleted U_3O_8 conversion product after additional appropriate NEPA review.” See *id.* at 13 (quoting LES Exh. 17, at 2-11 (Final Environmental Impact Statement for the Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the

Paducah, Kentucky Site, DOE/EIS-0359, Oak Ridge Operations, DOE Office of Environmental Management (June 2004))).

4.18 Counsel for NIRS/PC elicited additional testimony on this matter by cross-examining Mr. Johnson, through whom counsel introduced several exhibits that, variously, contained statements indicating that, for particular reference sites studied, near-surface disposal of large quantities of depleted uranium would not be appropriate, and that disposal of large quantities indicated the need for a unique type of disposal facility given that generic performance assessments showed the Part 61 dose requirements could be exceeded by a wide margin. *See* Tr. at 2930-44; *see also* NIRS/PC Exh. 247 (Letter from R. Bernero, Director, Office of Nuclear Material Safety & Safeguards (NMSS), NRC, to C. Bradley, Office of Uranium Programs, DOE (Jan. 3, 1995)); NIRS/PC Exh. 248 (Letter from E. Leeds, Chief, Special Projects Branch, Division of Fuel Cycle Safety & Safeguards, NMSS, NRC, to Depleted Uranium Hexafluoride Management Program, DOE (Oct. 18, 2000)); NIRS/PC Exh. 256 (Letter from J. Hickey, Chief, Fuel Cycle Safety Branch, Division of Industrial & Medical Safety, NMSS, NRC, to W.H. Arnold, President, LES (Sept. 22, 1992)); NIRS/PC Exh. 257 (A. Croff et al., Oak Ridge National Laboratory, Assessment of Preferred Depleted Uranium Disposal Forms (June 2000)); NIRS/PC Exh. 277 (Memorandum from R. Bangart, Director, Division of Low-Level Waste Management & Decommissioning, NMSS, NRC, to R. Cunningham, Director, Division of Industrial & Medical Nuclear Safety, NMSS, NRC (Jan. 12, 1993)).

4.19 On cross-examination, however, Mr. Johnson explained that NRC statements to the effect that near-surface disposal would not be appropriate were based on the specific facts or parameters upon which those analyses were based. *See* Tr. at 2930-44. For example, with regard to the CEC analyses, the Kozak Report and the CEC FEIS both concluded that near-surface disposal of large quantities of depleted uranium at a “humid southeastern U.S.” or “wet” site would not be plausible. *See* Kozak Report at 5; Staff Exh. 46, at 4-67 (NUREG-1484, “Final Environmental Impact Statement for the Construction and Operation of Claiborne Enrichment Center, Homer, Louisiana,” § 4.2.2.8 & App. A (Aug. 1994)). Those analyses of hypothetical “wet” near-surface disposal sites, which included the drinking water and agricultural exposure pathways, showed that doses would exceed Part 61 limits at the hypothetical site(s) studied, and therefore concluded that at such sites deep disposal would likely be necessary. *See id.* Further, the Staff pointed out that nothing in its review of disposal of depleted uranium from the NEF contradicts NRC statements in connection with, for instance, the scoping process for the DOE Programmatic EIS (PEIS); rather, the Staff testified that it considers the Envirocare facility, which the Staff used as a reference site for its analysis of the impacts of near-surface disposal of depleted uranium from the NEF, a unique disposal site based on certain unique characteristics of that site. *See* Tr. at 2937.

4.20 As demonstrated above, party positions on this issue are not as divergent as they might initially appear. The Staff does not dispute that, in the reports and statements introduced by NIRS/PC, the agency determined that in certain circumstances near-surface disposal was not, or likely would not be, appropriate for large quantities of depleted uranium. The crux of NIRS/PC's argument, both here and in the context of paragraph A to contention NIRS/PC EC-4, discussed *infra*, is that regardless of a determination that depleted uranium is low-level radioactive waste, or even a particular class of low-level waste, the issue of whether depleted uranium is appropriate for near-surface disposal must be resolved on a site-specific basis, based on an analysis of whether disposal at a particular site would satisfy the radiation protection requirements of Part 61, Subpart C. *See* NIRS/PC Disposal Direct Testimony at 11-12. The Staff does not dispute this point. Rather, the Staff agrees that a particular waste classification does not conclude the inquiry about whether near-surface disposal at a given site is appropriate, asserting that "the ultimate test in determining whether a proposed site would be suitable for disposal as to whether or not it could meet the overall performance objectives in subpart C to Part 61." Tr. at 2835.

4.21 NIRS/PC would have the Board find that the fact that the Staff has now, in the NEF FEIS, stated that the impacts of near-surface disposal at a particular reference site would be "small," *see* NEF FEIS at 4-63, demonstrates an unexplained change in agency position, given that the Staff has repeatedly found that the Part 61 performance objectives would be exceeded for near-surface disposal of large quantities of depleted uranium.

4.22 The Board cannot agree. To the contrary, the Board is persuaded that the Staff has carried its burden of proof to demonstrate that the NRC has consistently applied the principle that near-surface disposal of large quantities of depleted uranium requires a site-specific analysis that takes into consideration the particular characteristics of an individual site or hypothetical site. Indeed, Mr. Johnson testified for the Staff that the type of site-specific exposure pathway analysis Dr. Makhijani would have the Staff conduct to determine whether the performance objectives of Subpart C can be met is just the kind of analysis the State of Utah conducted in licensing the Envirocare facility. *See* Tr. at 2836-37. To the extent NEPA requires an agency to acknowledge, explain, or otherwise account for a change in agency position,²⁷ no such explanation or acknowledgment is required here, when the agency position has in fact not changed. Rather, the approach taken in the context of this license application is in line with the NRC's position over the past decade and a half, namely, that the appropriateness of

²⁷NIRS/PC have made no presentation to the Board demonstrating that NEPA in fact imposes such a requirement on the agency. All the CEQ and corresponding NRC regulations require is that the Staff take a hard look at the environmental impacts of the proposed action, an issue we address in Part IV.C, *infra*.

near-surface disposal of large quantities of depleted uranium depends on whether such disposal would comply with the Part 61 performance objectives, and that such compliance, in turn, depends on specific disposal site characteristics or, in the case of a generic analysis, assumptions regarding specific site characteristics. Based upon the foregoing, and the testimony and evidence in the record before the Board, relative to the matters raised by NIRS/PC in paragraph B to their contention NIRS/PC EC-4, as remanded, we find the NIRS/PC challenge cannot be sustained.

4.23 With this foundation, the Board turns to the more complex question before it, namely, whether the Staff in the FEIS indeed did satisfy its NEPA obligation in its analysis of the environmental impacts of near-surface disposal of large quantities of depleted uranium.

C. Adequacy of the Staff's NEPA Analysis Relative to the Impacts of Near-Surface Disposal of Depleted Uranium (Paragraph A)

4.24 As the foregoing discussions demonstrate, the scope of the contention the Board seeks to resolve today is quite narrow. The only issue remaining for the Board's consideration is whether the Staff took the hard look required by NEPA with regard to the environmental impacts of near-surface disposal of depleted uranium in the concentrations and quantities produced by a uranium enrichment facility such as the proposed NEF. As the Commission noted in CLI-05-20,

[a]n NRC "impacts" analysis does not require a full-scale site-specific review, an inquiry in the purview of the responsible licensing agency, such as an Agreement State. NEPA also does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts. An assessment of the estimated impacts at one or more representative or reference sites can be sufficient.

CLI-05-20, 62 NRC at 536 (emphasis in original).

4.25 Two FEIS sections bear directly on the question at hand. Section 2.1.9 discusses the disposition options for depleted uranium from the NEF. *See* NEF FEIS at 2-27 to 2-33. As is relevant here, the FEIS states that converted depleted uranium in the form of U₃O₈, the waste form LES proposes to utilize, "can be considered a Class A low-level radioactive waste." *Id.* at 2-31.²⁸ FEIS section 2.1.9 further explains that there are three commercial low-level radioactive waste disposal facilities licensed and operating in the United States: (1) Barnwell,

²⁸As discussed above, any challenge by NIRS/PC to the finding that depleted uranium from the NEF constitutes low-level waste and, further, that under the current 10 C.F.R. Part 61 regulations such waste is properly classified as Class A waste, runs contrary to express Commission statements and therefore is not before this Board.

located in Barnwell, South Carolina, and licensed by the State of South Carolina to accept Class A, B, and C wastes; (2) Hanford, located in Hanford, Washington, and licensed by the State of Washington to receive Class A, B, and C wastes; and (3) Envirocare, located in Clive, Utah, and licensed by the State of Utah to accept Class A waste.²⁹ *See id.* at 2-31 to 2-32. In addition, Envirocare is the only facility that is not limited to accepting waste from particular compact states and, therefore, can accept waste from all regions of the United States.³⁰ *See id.* at 2-32.

4.26 Section 4.2.14.4 of the FEIS discusses the environmental impacts from disposal of the converted depleted uranium waste from the proposed NEF. *See id.* at 4-63. Specifically, the FEIS uses Envirocare as a “reference site,” and makes four points regarding the impacts of near-surface disposal at Envirocare: (1) the environmental impacts of disposal at a given licensed near-surface disposal site, such as Envirocare, would have been examined at the time the facility received its initial license, or in conjunction with any amendment to that license; (2) under the terms of its license, Envirocare is authorized by the State of Utah to accept depleted uranium without any volume restrictions; (3) certain site-specific characteristics make disposal of depleted uranium acceptable at the Envirocare site; and (4) because disposal of depleted uranium at Envirocare meets the State of Utah low-level waste licensing requirements,³¹ impacts of disposal of depleted uranium from the NEF at Envirocare would be “small.”

4.27 As noted above, the Commission stated in CLI-05-20 that an assessment of the impacts of near-surface disposal at one or more representative or reference sites may be sufficient to satisfy NEPA. Dr. Palmrose testified for the Staff that a reference site is “a site where it would be possible to meet all the performance criteria of Part 61 to safely dispose of the depleted uranium, where the environmental impacts would be small,” Tr. at 2866, and further stated that

²⁹The FEIS also discusses two other potential waste disposal options. DOE operates a low-level radioactive waste disposal facility at the Nevada Test Site, which is restricted to waste generated by DOE. *See* NEF FEIS at 2-31. As the NEF FEIS notes, the Nevada Test Site is a disposal option for depleted uranium waste from the NEF only if ownership of the waste is first transferred to DOE, *see id.* at 2-32, but LES has stated that private disposal is its preferred option. Waste Control Specialists (WCS), a commercial hazardous waste disposal facility, submitted an application to the State of Texas in August 2004 for a license to dispose of Class A, B, and C low-level radioactive waste. *See id.* Because several regulatory actions would need to be completed before depleted uranium waste from the proposed NEF could be disposed of at WCS, the FEIS assumes that the NEF waste “would be disposed at another disposal site licensed to accept this material.” *Id.* at 2-33.

³⁰Despite the limitations on waste disposal between and among compact states, Mr. Krich testified for LES that there are certain processes in place that may permit the export of LLRW from a compact state to a facility outside of that particular compact. *See* Tr. at 3081-83.

³¹Because Utah is an NRC Agreement State, its low-level radioactive waste disposal regulations must be compatible with 10 C.F.R. Part 61 to receive, in the first instance, and maintain its Agreement State status. *See supra* pp. 260-61.

Envirocare was used as a reference site for purposes of the Staff's analysis in the FEIS, *see* Tr. at 2865.

4.28 At bottom, the Staff maintains that its NEPA obligation is satisfied by its conclusion in the FEIS that the impacts of near-surface disposal at a licensed low-level waste facility, here Envirocare, would be "small" because such disposal would meet the Part 61, Subpart C performance objectives. Such a conclusion by the Staff, however, requires two separate determinations. First, the Staff must find that Envirocare is licensed to accept the quantities of depleted uranium at issue here, meaning that the impacts of near-surface disposal of large quantities of depleted uranium were assessed by Utah, as an Agreement State, at the time it was licensed to accept such waste and were found to meet the requirements of Utah's analog to the Part 61 performance objectives. *See, e.g.*, Tr. at 2836-37, 2865-67; NEF FEIS at 4-63. Second, to satisfy its own NEPA obligation with regard to the particular challenge to the NEF license application at issue here, the Staff would have to "independently review" the determination made by the licensing body, and exercise "independent judgment" in determining the radiological impacts of disposal at that particular site. *See* Part III.A.1, *supra*.

4.29 While the question before the Board has been stated broadly as whether the Subpart C performance objectives would be met in the case of near-surface disposal of depleted uranium at Envirocare, in actuality, as this issue was litigated by NIRS/PC at the hearing, its challenge was focused on the question whether the intruder dose would be exceeded in the long term at the Envirocare site (i.e., 10 C.F.R. §§ 61.41, 61.42).³² *See, e.g.*, Tr. at 2974-3005, 3066-81; *see also* NIRS/PC Proposed Findings at 65-92. In essence, NIRS/PC contend that the analysis of exposure pathways for various intruder scenarios exceeds the dose limits specified

³² Although NIRS/PC have sought to interpose other concerns regarding disposal at the Envirocare facility, including compliance with radium-226 limits and Environmental Protection Agency (EPA) drinking water contamination limits, as well as the need to use another depleted uranium disposal form (i.e., DUO₂), all these matters are irrelevant to the narrow Staff environmental analysis issue here before the Board. With regard to radium-226, because the Utah DRC has interpreted the applicable state regulations to mean that "[d]etermination of whether waste is Class A LLW is based on the waste composition when received by Envirocare," and, "at the time of receipt by Envirocare, DU products would easily meet the ²²⁶Ra concentration limits," *see* NIRS/PC Exh. 273, at 9 (A.G. Croff et al., Oak Ridge National Laboratory, Evaluation of the Acceptability of Potential Depleted Uranium Hexafluoride Conversion Products at the Envirocare Disposal Site (Dec. 2000)), whether the radium-226 concentrations might exceed regulatory protection limits at some time in the future is not a matter before the Board. As to compliance with EPA drinking water contamination limits, this is an issue beyond the Board's jurisdiction and the scope of this proceeding. *See Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-16, 48 NRC 119, 121-22 (1998) (licensing boards do not have jurisdiction over matters properly before other regulatory bodies). Lastly, the Board has repeatedly excluded consideration of alternate disposal forms such as DUO₂ as outside the scope of this proceeding. *See, e.g.*, First In Limine Ruling at 5, 11-12.

in Subpart C when carried out over the long term, and that the staff did not take a sufficiently hard look at these impacts for purposes of NEPA.³³ *See* Tr. at 3076-77.

4.30 As Dr. Makhijani pointed out in his oral testimony at the hearing, the Part 61 regulations establish dose limitations to protect members of the public from releases of radioactivity from land disposal facilities. *See* Tr. at 2975. Specifically, 10 C.F.R. § 61.41 establishes whole body and organ dose limits, requiring that radioactive material released to the environment in ground or surface water, air, soil, plants, or animals “must not result in an annual dose exceeding an equivalent of 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ of any member of the public.” Further, section 61.42 refers to protection of the “inadvertent intruder,” and requires that:

Design, operation, and closure of the land disposal facility must ensure protection of any individual inadvertently intruding into the disposal site and occupying the site or contacting the waste *at any time* after active institutional controls over the disposal site are removed.

Id. (emphasis added). Taken together then, as Dr. Makhijani indicated during his oral testimony at the hearing, *see* Tr. at 2975, the performance objectives for a near-surface disposal facility such as Envirocare require that the relevant licensing entity examine whether, at any particular time after active institutional controls are removed, the section 61.41 dose limitations will be met for the inadvertent intruder.

4.31 Absent particular circumstances establishing a foundation for excluding intruder scenarios in evaluating compliance with the Part 61 requirements, intruder scenarios and, correspondingly, intruder dose must be considered by the licensing entity at the time of initial licensing or any subsequent amendment to the license. Consideration and evaluation of those intruder scenarios and related intruder dose would then be an obvious part of the “hard look” NEPA requires be taken at environmental impacts associated with a particular licensing action.

4.32 As it turns out, regardless of whether the Staff’s FEIS analysis of

³³ Given that the contention now before the Board is framed in terms of a challenge to the Staff’s NEPA compliance based on the supposition that NEPA “impacts” associated with near-surface disposal cannot be “small” because they exceed the Part 61 radiation dose limits, we need not reach the question as to whether, despite compliance with the Part 61 regulations, consistent with the agency’s NEPA obligations the impacts could be such as to preclude a finding of “small.” In this instance, a finding by the Staff and/or the Board that Part 61, or its Utah regulatory equivalent, has been satisfied is sufficient to demonstrate that the agency has taken the requisite “hard look” at the specific NEPA-related matters challenged by NIRS/PC paragraphs A and B of contention EC-4.

near-surface disposal impacts was deficient on its face,³⁴ the Board finds that — as reflected in its presentation at the hearing — there is now sufficient evidence on the record before us to conclude that the Staff indeed took a hard look at the impacts of near-surface disposal at Envirocare as required by NEPA. Because the Board finds evidence on the record sufficient for the Staff to carry its burden of proof relative to NEPA, and because our decision here amends the FEIS *pro tanto*, the Board concludes that it has no reason to remand this issue to the Staff for further analysis or review. 4.33 During the October 2005 evidentiary hearing, the Staff provided additional testimony relative to the review it conducted in evaluating Envirocare as a reference site for near-surface disposal for purposes of the FEIS. Mr. Johnson testified that the Staff reviewed a 1990 report “which was the princip[al] basis for the original licensing of the Envirocare facility” by the State of Utah, *see* Tr. at 2884-85; NIRS/PC Exh. 170 (R.D. Baird et al., Rogers and Associates Engineering Corp., Evaluation of the Potential Public Health Impacts Associated with Radioactive Waste Disposal at a Site Near Clive, Utah (June 1990)) [hereinafter referred to as the Baird report], prior to issuing the FEIS, and further stated that the Staff’s review of that report was factored into the FEIS for the NEF, *see* Tr. at 2886. NIRS/PC relies on the fact that the Baird report, which, according to Mr. Johnson, the Staff reviewed and found scientifically reasonable as addressing the appropriate exposure pathways and reaching reasonable scientific results, *see* NIRS/PC Proposed Findings at 88 (citing Tr. at 2886-87), concluded that the dose limits of Part 61 would likely be exceeded for the intruder scenarios evaluated for the Envirocare site, *see, e.g.*, Tr. at 2894-97; NIRS/PC Proposed Findings at 88-89.

4.34 What this NIRS/PC position does not fully account for, however, is Mr. Johnson’s testimony that the Staff reviewed and likewise found reasonable the State of Utah’s conclusion that it was “appropriate to drop the intruder pathways because they were unrealistic because of the unique site characteristics

³⁴Despite NIRS/PC’s claims to the contrary, it is not apparent the Staff failed to include in the FEIS the minimum discussion required to comply with NEPA. The concern, nonetheless, is whether statements in the FEIS such as “[s]everal site-specific factors contribute to the acceptability of depleted uranium disposal at the Envirocare site, including highly saline groundwater . . . , saline soils . . . , and low annual precipitation,” NEF FEIS at 4-63, rise to the level that permits us to determine that the Staff took the requisite hard look. While it may well be acceptable to conclude that the high salinity of the water and soil and low annual rainfall make the site unsuitable for future use by humans, *e.g.*, for irrigation or agriculture, it is problematic whether such a conclusory statement by the Staff is sufficient to comply with NEPA. So too, it is not clear whether the Staff’s deferral to the State of Utah’s conclusion that Envirocare can accept large quantities of depleted uranium for disposal can, in and of itself, suffice to fulfill the Staff’s obligation to review the State of Utah’s determination before reaching its own conclusions. Despite the fact that the Staff is permitted to rely on the reports and conclusions of other agencies in completing its NEPA analysis, the Staff must review the determinations of that agency before reaching its own independent conclusion. *See* Part III.A.1 *supra*.

of the Envirocare site.”³⁵ Tr. at 2887. As a summary of a telephone conference between officials from the Utah Division of Radiological Control (DRC), the state agency responsible for administering Utah’s radiation protection program, and the NRC Staff reflects, the DRC staff stated that they found residential and/or farming scenarios at Envirocare unrealistic for several reasons, including low precipitation, high evapotranspiration rates, and high saline content in both the soil and groundwater at the site. *See* LES Exh. 104, at 2 (Memorandum from M. Blevins, Senior Project Manager, Environmental and Low-Level Waste Section, Division of Waste Management and Environmental Protection, NMSS, NRC, to S. Flanders, Deputy Director, Environmental and Performance Assessment Directorate, Division of Waste Management and Environmental Protection, NMSS, NRC (Apr. 6, 2005)). Specifically with regard to groundwater salinity, the DRC found that such high rates (approximately 30,000-80,000 milligrams per liter of total dissolved solids) precluded the use of that water for both animal and human consumption, and for irrigation. *See id.* at 3. Based on these site-specific characteristics, the DRC found intruder events at the Envirocare facility not credible, and accordingly eliminated all intruder pathways from consideration in conducting its analysis to determine compliance with the Part 61 performance objectives. *See* Tr. at 2874-76.

4.35 As discussed above, NEPA’s hard look requirement is tempered by the fact that an agency’s review is governed by the “rule of reason,” which requires only that an agency consider impacts that it views as reasonably foreseeable. *See* Part III.A.1, *supra*. While acknowledging that performance objectives and technical standards must be interpreted and applied with reason, NIRS/PC nonetheless argues that the performance objectives and technical standards of Part 61 must be met for all times and circumstances, including intruder scenarios in the long term, which in this instance precludes the elimination of intruder pathways relative to the Envirocare site. *See* NIRS/PC Proposed Findings at 87-93.

³⁵ Dr. Palmrose testified, however, that he did not review the Baird report in conjunction with his involvement in the Staff’s preparation of the FEIS, and only reviewed the report in preparation for the October evidentiary hearing. *See* Tr. at 2882-83. Further, Dr. Palmrose stated that he did not review the Baird report, even in preparation for his testimony, in a manner sufficient to make any finding that the report was a “scientifically responsible job, with scientifically reasonable results.” *See* Tr. at 2883. This lack of review by the Staff’s expert is troubling, particularly since Dr. Palmrose’s job responsibilities in connection with the Staff’s review of the NEF application included “principal author of . . . [section] 4.2.14.4, Impacts from Disposal of the Converted Waste,” *see* Staff Disposal Direct Testimony at 3, the section of the FEIS directly at issue here. Nonetheless, we conclude that review of the Baird report by NEF project manager Johnson provides a sufficient basis to find the Staff’s hard-look responsibility has been fulfilled. Although the Staff is ultimately responsible for the work undertaken, or not undertaken, by its contractors, a Staff analysis is not necessarily insufficient if, in the face of a deficiency on the part of its contractor, a responsible Staff official has “stepped into the breach” and conducted the necessary review and analysis.

4.36 In assessing this NIRS/PC claim, two separate questions must be evaluated. First, witnesses for both the Staff and LES have asserted that it is reasonable to extend evaluations of the performance of a near-surface disposal site out only as far as 1000 or, perhaps, 10,000 years. *See, e.g.*, Tr. at 2618-19, 2889-91. They acknowledged, however, that this is not a time limit imposed or approved by any NRC regulation, but rather it is a matter of agency policy or judgment. *See id.* As stated above, section 61.42 indicates that the dose limits be met without time limitation, i.e., “at any time.” Although this regulation does not provide a basis for arbitrarily truncating exposure computations at 1000 or 10,000 years,³⁶ the Board nonetheless is persuaded that it was appropriate for the Utah DRC, and the NRC Staff, to make a determination that certain scenarios are so unlikely as to warrant elimination from consideration. As the Commission cautioned in its remand of this matter to the Board, NEPA does not require certainty or precision, but a reasonable estimate of anticipated and not “unduly speculative” impacts. *See* CLI-05-20, 62 NRC at 536. Here, the Staff made a reasonable determination, as did the DRC staff, that the high salinity of the soil and groundwater and the low annual precipitation and high evapotranspiration rates make any intruder scenario so unrealistic, i.e., so unduly speculative, as to fall outside the scope of the Staff’s NEPA review.³⁷ NIRS/PC have presented no real challenge to such a determination, positing instead that the plain meaning of section 61.42 precludes such a determination, a position the Board rejects. Thus, the Board concurs with the conclusion by the State of Utah and the Staff that the intruder scenarios are so unlikely based on the specific characteristics of the Envirocare site as to fall outside of what can reasonably be called anticipated or not unduly speculative impacts.

³⁶ Indeed, the fact that other Part 61 provisions contain time limits, *see, e.g.*, 10 C.F.R. § 61.52(a)(2) (referring to “intruder barriers that are designed to protect against an inadvertent intrusion for at least 500 years”), indicates that the agency was not unaware of how to include such a time limit in section 61.42.

³⁷ The conclusion that such scenarios are so highly unrealistic rests on the nature of the pathways excluded. For example, as Mr. Johnson testified, under an intruder agriculture pathway scenario, it would be assumed that an inadvertent intruder would enter and take up residence at the Envirocare site, drill a well, take up groundwater for consumption and for irrigation of foods grown on site, such that the dose pathway would then be through consumption of food grown onsite, in contaminated soil, irrigated by contaminated water. *See* Tr. at 2875-76. Given the extreme salinity of the soil and groundwater, as well as the low annual precipitation/high evapotranspiration rates, which make the groundwater and food grown at the site unsuitable for consumption, the Staff found it reasonable to eliminate those unlikely pathways. *See* Tr. at 2876. Presumably, for such residential or agricultural uses to be practicable in the future, material socioeconomic changes and/or improvements in technology would have to occur. Because such material technological and socioeconomic changes are not predictable with any confidence, any projections about the likelihood of an intruder scenario would be exceedingly speculative. In fact, the Board expressly declined to go down the path of making speculative projections about the distant future at the October evidentiary hearing. *See* Tr. at 2909-10.

4.37 In addition to the question of the reasonableness of eliminating intruder pathways relative to the Envirocare site, there is the matter of whether the use of Envirocare as a reference site is appropriate. NEPA requires the Staff to take a hard look at all reasonably foreseeable environmental consequences of construction and operation of the proposed NEF, including those secondary or indirect consequences of disposal of the waste generated by that facility. These secondary effects cannot, and need not for the purposes of satisfying the agency's NEPA obligation, *see* CLI-05-20, 62 NRC at 536, be examined with particularity since a specific disposal site has not yet been identified. The Staff did not include in its FEIS any analysis of the environmental impacts of near-surface disposal at any other site, simply referencing the Envirocare site as an "example" of a potential disposal site, *see* NEF FEIS at 4-63, and leaving for the Board the question of whether an analysis of the impacts at this one reference site is sufficient.

4.38 As noted above, the FEIS indicates that only a few sites in the United States are currently licensed to dispose of depleted uranium, one of which is the Envirocare site that, as we also noted above, is the only one of the three that currently does not have a compact-related restriction that could affect the receipt of any NEF waste. Recognizing that the environmental consequences of disposal of the deconverted depleted uranium generated at the NEF is a secondary or indirect environmental consequence of constructing and operating the NEF, the particular consequences of which cannot be fully evaluated until a particular disposal site is determined, the Board nonetheless finds it reasonable, for NEPA purposes, that the Staff examined the environmental impacts of disposal using the currently licensed Envirocare facility as a reference site. In other words, in the particular circumstances of this case, the Staff's NEPA review based upon a single reference site satisfies the Staff's NEPA obligation to take a hard look at the environmental impacts of near-surface disposal with regard to the particular challenges asserted by NIRS/PC in paragraph A to its amended contention.

4.39 This is not to say that, by any measure, the environmental impacts at the Envirocare site can be considered to be "bounding." To reach the conclusion that the disposal impacts at Envirocare "bound" those that might be found for near-surface disposal at any other site would require the Board to find that impacts at any other site would be similar to, or less than, the impacts at the Envirocare site. This is a finding the Board cannot make based on the record now before it.

4.40 The Envirocare site impacts analysis has been found acceptable (i.e., the environmental impacts found to be "small") based on its unique site characteristics, e.g., high groundwater and soil salinity and low annual precipitation/high evapotranspiration. The Board has been presented with no evidence that would lead it to believe that these unique characteristics are present at any other United States site currently licensed to accept depleted uranium, or at any other site that has been identified as a potential disposal site, including the WCS site discussed

in the FEIS, *see* NEF FEIS at 2-32 to 2-33. There is no evidence before the Board as to whether near-surface disposal at any other currently licensed site (which the Staff could also have deemed “representative” or “reference” sites for the purposes of its FEIS analysis) might meet the requirements of Part 61 with respect to the intruder dose.³⁸

4.41 Nonetheless, while the Board cannot, on the record now before it, find that the Staff’s NEF FEIS evaluation of the environmental impacts of near-surface disposal of the depleted uranium ultimately arising as waste from the NEF is “bounding” or broadly scoped, the Board is satisfied that the NEF FEIS examination of the potential consequences at one reference site is sufficient, in these unique circumstances, to satisfy the Staff’s NEPA obligations.

4.42 To be sure, the question of the sufficiency of the Staff’s FEIS discussion of near-surface disposal impacts is a close case for the Board, as it apparently was for the Commission in determining how to address the issues raised by this NIRS/PC contention, *see* CLI-05-20, 62 NRC at 536. As outlined above, the FEIS as written does not provide an expansive explanation regarding this matter. Nonetheless, when combined with the full record before the Board, in particular the Staff’s analysis of the reasonableness of excluding the intruder scenarios for the Envirocare site, the aggregate is sufficient to satisfy the agency’s obligation under NEPA for this aspect of the environmental impacts of near-surface disposal, albeit only as to that particular site.

4.43 Finally, as was discussed above, the Board notes that the Commission has directed the Staff to examine, outside of this adjudication, whether the

³⁸ Although the Board ruled at the October 2005 evidentiary hearing that NIRS/PC have waived the opportunity to challenge the underlying analyses for generic “wet” and “dry” disposal sites as those are discussed in Appendix I to the DOE PEIS, *see* Tr. at 2600, the Board also declines the LES invitation to find that the analyses of generic “wet” and “dry” disposal sites in the DOE PEIS are bounding for the impacts of near-surface disposal, *see* LES Proposed Findings at 82; *see also* Tr. at 2641-46; LES Exh. 18, App. I at I-3 to I-4, I-19, I-69 to I-70 (Final Programmatic Environmental Impact Statement for Alternative Strategies for the Long-Term Management and Use of Depleted Uranium Hexafluoride, DOE/EIS-0269, DOE Office of Nuclear Energy, Science and Technology (April 1999)). Putting aside Dr. Palmrose’s testimony for the Staff that he did not rely on the DOE PEIS to assess the radiological impacts of near-surface disposal of depleted uranium, *see* Tr. at 2867, the fact that the PEIS analyses incorporate certain limiting assumptions forecloses a Board finding that those analyses are bounding relative to the impacts of near-surface disposal of large quantities of depleted uranium. In particular, the PEIS Appendix I modeling analyses incorporate a time limit of 1000 years after the first release of radioactivity which, as discussed above, does not comport with the “at any time” language of section 61.42. Since the relevant regulation does not incorporate any such time limit, the Board is not in a position to find, with regard to near-surface disposal impacts, that analyses that are not carried out beyond 1000 years “bound” the impacts of near-surface disposal. This is not to say, however, that the PEIS analyses are inapplicable to any other findings the Board may make with regard to the NEF application; rather, the Board simply cannot find the analyses presented in Appendix I to the PEIS “bounding” based on the record before it.

quantities of depleted uranium from enrichment facilities warrant amending section 61.55(a)(6), or the waste classification tables of section 61.55(a). *See id.* Should the Commission make a determination in the course of that rulemaking proceeding that section 61.55 or other portions of Part 61 need revision to address the impacts resulting from the waste stream from uranium enrichment facilities, such a determination may well require that licenses for near-surface disposal facilities, including Envirocare, be evaluated in light of any new requirements imposed by any revised Part 61 regulations.

V. SUMMARY FINDINGS OF FACT AND CONCLUSIONS OF LAW

5.1 Regarding contention NIRS/PC EC-4, Impacts of Waste Storage and Disposal, as remanded by the Commission in CLI-05-20 relative to the issue of the adequacy of the NEF FEIS analysis of the environmental impacts of near-surface disposal of NEF depleted uranium, pursuant to 10 C.F.R. § 51.102, the discussion in FEIS section 4.2.14.4 regarding the impacts of disposal of depleted uranium at a near-surface disposal facility is supplemented by the Board's decision above, along with the underlying adjudicatory record supporting that decision.

5.2 Having considered all of the evidence submitted and testimony given by the parties in this proceeding, as well as the proposed findings of fact and conclusions of law submitted by the parties, regarding contention NIRS/PC EC-4, Impacts of Waste Storage and Disposal, as remanded by the Commission relative to the issue of the adequacy of the NEF FEIS analysis of the environmental impacts of near-surface disposal of NEF depleted uranium, based on the findings and conclusions set forth in Part IV, above, the Board finds that the NRC Staff has met its burden with regard to the challenges by NIRS/PC to the adequacy of the NEF FEIS in accordance with 10 C.F.R. §§ 2.325, 51.104. Therefore, relative to the near-surface disposal impacts issues raised in connection with remanded contention NIRS/PC EC-4 that were litigated during the October 2005 evidentiary hearing, the Board finds that this contention is resolved in favor of the Staff.

6.1 Pursuant to 10 C.F.R. § 2.713, it is, this third day of March 2006, ORDERED that this Second Partial Initial Decision will constitute a final decision of the Commission forty (40) days from the date of issuance, i.e., on *Wednesday, April 12, 2006*, unless a petition for review is filed in accordance with 10 C.F.R. § 2.341, or the Commission directs otherwise. Any party wishing to file a petition for review on the grounds specified in 10 C.F.R. § 2.341(b)(4) must do so within fifteen (15) days after service of this Second Partial Initial Decision. The filing of a petition for review is mandatory for a party to have exhausted its administrative remedies before seeking judicial review. Within ten (10) days after service of a petition for review, parties to the proceeding may file an answer supporting

or opposing Commission review. Any petition for review and any answer shall conform to the requirements of 10 C.F.R. § 2.341(b)(2)-(3).

THE ATOMIC SAFETY AND
LICENSING BOARD³⁹

G. Paul Bollwerk, III, Chairman
ADMINISTRATIVE JUDGE

Paul B. Abramson
ADMINISTRATIVE JUDGE

Charles N. Kelber
ADMINISTRATIVE JUDGE

Rockville, Maryland
March 3, 2006

³⁹ Copies of this Partial Initial Decision were sent this date by Internet e-mail transmission to counsel for (1) Applicant LES; (2) Intervenors NIRS/PC; and (3) the Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

G. Paul Bollwerk, III, Chairman
Dr. Paul B. Abramson
Dr. Charles N. Kelber

In the Matter of

Docket No. 70-3103-ML
(ASLBP No. 04-826-01-ML)

LOUISIANA ENERGY SERVICES, L.P.
(National Enrichment Facility)

March 3, 2006

In this 10 C.F.R. Part 70 proceeding regarding the application of Louisiana Energy Services, L.P., for authorization to possess and use source, byproduct, and special nuclear material to enrich natural uranium by the gas centrifuge process at its planned National Enrichment Facility (NEF) to be built near Eunice, New Mexico, the Licensing Board grants an NRC Staff motion for summary disposition and denies a cross-motion by Intervenors Nuclear Information and Resource Service/Public Citizen regarding the adequacy of the Staff's National Environmental Policy Act (NEPA) environmental impact statement (EIS)-related discussion of estimated doses arising from depleted uranium (DU) disposal in a geological repository.

RULES OF PRACTICE: SUMMARY DISPOSITION

The well-established standard governing the grant of summary disposition under 10 C.F.R. § 2.710 has been described as follows:

[S]ummary disposition may be entered with respect to any matter (or all of the matters) in a proceeding if the motion, along with any appropriate supporting material, shows that there is "no genuine issue as to any material fact and that

the moving party is entitled to a decision as a matter of law.’’ The movant bears the initial burden of making the requisite showing that there is no genuine issue as to any material fact, which it attempts to do by means of a required statement of material facts not at issue and any supporting materials (including affidavits, discovery responses, and documents) that accompany its dispositive motion. An opposing party must counter each adequately supported material fact with its own statement of material facts in dispute and supporting materials, or the movant’s facts will be deemed admitted. *See Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102-03 (1993).

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-02-20, 56 NRC 169, 180 (2002).

RULES OF PRACTICE: SUMMARY DISPOSITION (LITIGABLE ISSUES)

Failure to raise any challenge to a Staff EIS correction essentially renders that aspect of an intervenor challenge moot, as the intervenor has failed to raise a litigable challenge to the previously identified error. *See Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-94-6, 39 NRC 285, 306-07 (1994) (something more than suspicions or bald assertions are necessary as the basis for any purported material factual disputes), *aff’d sub nom. Advanced Medical Systems, Inc. v. NRC*, 61 F.3d 903 (Table) (6th Cir. 1995) (per curiam).

NEPA: ENVIRONMENTAL IMPACT STATEMENT (SUFFICIENCY OF FINDINGS)

A draft or final EIS is not considered deficient per se simply because its various NEPA findings do not include an explanation that is sufficient on its face to enable independent verification of any scientific results that underlie those findings.

NEPA: ENVIRONMENTAL IMPACT STATEMENT (INCORPORATION BY REFERENCE; RELIANCE ON PRIOR STAFF ENVIRONMENTAL REVIEW)

The Commission has previously determined that the Staff in preparing an EIS for a uranium enrichment facility could rely upon the analyses in two Department of Energy (DOE) final EISs regarding environmental impacts expected from a DU hexafluoride conversion facility upon the basis that (1) the documents were publicly available; and (2) the Staff’s expert had “assessed the reasonableness of the DOE assumptions, calculations, and conclusions, even though he did not redo its underlying calculations.” CLI-05-28, 62 NRC 721, 730 (2005). In so

doing, the Commission recognized that redoing calculations from these DOE EISs “would [be] a duplication of resources not required by law.” *Id.* This reasoning applies with equal force to Staff reliance on a generic deep disposal dose impact analysis in a previous, Staff-prepared final EIS for another proposed uranium enrichment facility that was (1) publicly available; and (2) shown to be subject to independent assessment by Staff experts who prepared the NEF EIS.

MEMORANDUM AND ORDER
(Ruling on Summary Disposition Cross-Motions Relating to
Remand from CLI-05-20)

In CLI-05-20, 62 NRC 523 (2005), the Commission remanded to the Licensing Board for further proceedings an amended contention, Intervenor Nuclear Information and Resource Service/Public Citizen (NIRS/PC) environmental contention (EC)-4, Impacts of Waste Storage and Disposal,¹ regarding the environmental impacts of depleted uranium disposal associated with the proposed operation by Applicant Louisiana Energy Services, L.P. (LES), of the National Enrichment Facility (NEF) located near Eunice, New Mexico. Subsequently, NIRS/PC and the NRC Staff filed cross-motions for summary disposition regarding one aspect of the remanded contention — the question of the adequacy of the Staff’s National Environmental Policy Act (NEPA) environmental impact statement (EIS)-related discussion of estimated doses arising from depleted uranium disposal in a geologic repository² — that is currently pending before the Board. For the reasons stated herein, we deny the NIRS/PC dispositive motion and grant the Staff’s summary disposition request regarding this aspect of contention NIRS/PC EC-4.

I. BACKGROUND

A. Prior Litigation Regarding Contention NIRS/PC EC-4

Because the Commission in its remand decision provided an extensive discussion of the background regarding contention NIRS/PC EC-4, *see* CLI-05-20, 62

¹ Though the Board modified the title of this contention by deleting the words “and Disposal” from that title in its November 22, 2004 ruling on late-filed contentions, *see* Licensing Board Memorandum and Order (Ruling on Late-Filed Contentions) (Nov. 22, 2004) at 15 (unpublished), based on the Commission remand of amended contention NIRS/PC EC-4 to this Board in CLI-05-20, and the fact that contention NIRS/PC EC-4 now contains challenges related to the disposal of depleted uranium, the original title of this contention has been reinstated.

² Throughout this proceeding, the parties have referred to the type of disposal at issue here variously as deep disposal, geologic disposal, and mine disposal, among others. The Board uses those terms interchangeably herein, and no distinction should be inferred from the use of one term or another.

NRC at 526-33, and the Board also discusses this subject at some length in a partial initial decision (PID) issued today regarding another portion of remanded contention NIRS/PC EC-4 concerning the environmental impacts associated with near-surface disposal of depleted uranium, *see* LBP-06-8, 63 NRC 241, 250-58 (2006), and a ruling on a November 11, 2005 NIRS/PC request to amend that same contention, *see* Licensing Board Memorandum and Order (Ruling on Motion To Amend Contention NIRS/PC EC-4) (Mar. 3, 2006) at 2-8 (unpublished) [hereinafter Contention Amendment Ruling], we will not provide another lengthy discussion here. Rather, we below summarize the procedural avenue by which this matter regarding depleted uranium deep disposal impacts came to be before the Board on remand, as well as provide a description of pertinent post-remand developments relative to that issue statement.

As originally admitted by the Board in LBP-04-14, 60 NRC 40, 78 (2004), NIRS/PC EC-4 contested the sufficiency of the NEF Environmental Report (ER) as it allegedly failed to discuss the environmental impacts of the construction and operation of a deconversion plant for the depleted uranium hexafluoride (DUF₆) waste produced at the NEF. On October 20, 2004, NIRS/PC filed a motion to amend or supplement previously admitted contentions, including contention NIRS/PC EC-4, in accordance with the general schedule set for this proceeding, based on the recent publication of the Staff's draft environmental impact statement (DEIS) for the NEF. *See* LBP-06-8, 63 NRC at 251; LBP-05-13, 61 NRC 385, 395-96 (2005). In support of this request relative to contention NIRS/PC EC-4, NIRS/PC proffered a number of additional bases, including paragraph C in support of a challenge to the Staff's treatment in the DEIS of the impacts of waste disposal, that provided:

C. The DEIS attempts to estimate the impact of disposal of depleted uranium from the NEF in its modeling of the releases expected from the site. (at 4-58, 4-59 and Table 4-19). The DEIS fails to disclose the models used or the parameter values. The text suggests that models used in analyzing the [Claiborne Enrichment Center (CEC)] site were used; however, the results are unlike any reported in connection with the CEC facility. Further, the model addresses only two hypothetical disposal sites and fails to examine any actual location of disposal. Performance of a disposal site is highly site-specific.

Motion on Behalf of Petitioners [NIRS/PC] To Amend and Supplement Contentions (Oct. 20, 2004) at 16 [hereinafter October Contention Motion]. The reference in this NIRS/PC motion to the "CEC facility" site analysis is to an NRC NEPA analysis, set forth in a final environmental impact statement (FEIS), associated with an LES request for authorization to construct and operate the Claiborne Enrichment Center uranium enrichment facility in Claiborne Parish, Louisiana, in the early 1990s.

In a November 22, 2004 memorandum and order, the Board admitted a portion of the proffered amendment to EC-4 that alleged a failure of the DEIS to discuss the environmental impacts of the construction and operation of a depleted uranium (DU) deconversion plant,³ but declined to admit a supplemental paragraph regarding the DEIS's treatment of the impacts of disposal of DU given that an issue related to that challenge was then pending before the Commission, i.e., a question of whether depleted uranium constitutes low-level waste. *See* LBP-06-8, 63 NRC at 251; LBP-05-13, 61 NRC at 398, 400. In rejecting this latter part of the proffered amendment, including paragraph C above, the Board did, however, note that the challenges appeared to rest on new information contained in the DEIS, such that the amendment was not precluded by its untimely filing, and that it rejected the contention without prejudice to a renewed motion at a later date should a Commission ruling on the low-level waste question indicate the Board should hear that issue. *See* Licensing Board Memorandum and Order (Ruling on Late-Filed Contentions) (Nov. 22, 2004) at 14-15 (unpublished) [hereinafter November Contention Ruling].⁴

On January 18, 2005, the Commission issued a ruling concluding that depleted uranium from an enrichment facility is properly considered low-level waste, *see* CLI-05-5, 61 NRC 22, 34 (2005), but cautioned that "low-level radioactive waste can encompass both those wastes suitable for near-surface disposal and those that may require greater isolation," *id.* at 32. The Commission also noted that contentions challenging LES's waste disposal cost estimates were pending before the Board, and that additional environmental or safety analysis might be required to resolve the issues raised by those contentions. *See id.* at 35.

Following the Commission's ruling on the low-level waste issue, on February 2, 2005, NIRS/PC filed with the Board a second motion for the admission of an amendment to EC-4, among others. *See* Motion on Behalf of Intervenor [NIRS/PC] for Admission of Late-Filed Contentions (Feb. 2, 2005) [hereinafter February Contention Motion]. With regard to EC-4, NIRS/PC referred to the Board's previous statement concerning the possibility of a renewed contention amendment motion based on the Commission's ruling on the low-level waste issue, and averred that the Commission ruling in CLI-05-5 raised new information

³In the Board's first PID on environmental contentions, we decided the contention NIRS/PC EC-4 challenges to the discussion of the environmental impacts relative to the construction and operation of a deconversion facility in favor of LES and the Staff. *See* LBP-05-13, 61 NRC at 434-36. The Commission declined NIRS/PC's petition for review of that portion of the Board's decision. *See* CLI-05-28, 62 NRC 721, 726-31 (2005). Therefore, contention NIRS/PC EC-4 deconversion issues are no longer before this Board.

⁴In addition, to further clarify the scope of contention NIRS/PC EC-4 as then admitted, the Board modified the title of the contention to delete the words "and Disposal." *See* LBP-05-13, 61 NRC at 398.

on which the proposed amendment to contention NIRS/PC EC-4 appropriately was based. *See id.* at 1-5. Specifically, NIRS/PC again challenged the analysis in the DEIS of the environmental impacts of near-surface disposal methods and the analysis of estimated doses from geologic disposal, as well as raising a host of new issues purportedly related to DU disposal. *See id.* at 8-30. In particular with regard to the deep disposal impact concerns previously specified in paragraph C of their October 2004 amendment request, NIRS/PC declared in a paragraph K that:

K. . . . Staff also stated that doses from deep disposal of DU in a mine would be low and provided estimates of doses under a well water and river water scenario (DEIS Table 4-19) that are greatly below the limit of 25 mrem per year for [low-level waste] disposal. The estimates are said to be based on those in the CEC FEIS. However, NRC has declined to provide the methods and assumptions underlying the dose calculation. Moreover, doses in the DEIS are not broken down by radionuclide, and the totals are different from those in the CEC FEIS by nearly a factor of 2, with one notable exception. The difference may partly be explained by the NEF's generation of roughly twice the amount of DU of the CEC proposal. However, the estimate for the drinking water dose in the river scenario with a sandstone/basalt site is almost 54,000 times lower in the current DEIS than in the CEC FEIS. This discrepancy remains unexplained.

Id. at 17 (footnotes omitted).

In a May 3, 2005 ruling, the Board again declined to admit the proffered amendment to contention NIRS/PC EC-4 relative to the environmental impacts of DU disposal. *See* Licensing Board Memorandum and Order (Ruling on NIRS/PC Late-Filed Contentions and Providing Administrative Directives) (May 3, 2005) at 9-11 (unpublished). Specifically, the Board found that the proffered amendment failed to meet both the standard for nontimely amendment of contentions and the general contention admissibility requirements, in that NIRS/PC did not demonstrate good cause for the untimely amendment and, in any event, raised issues outside the scope of the admitted contention and which did not have sufficient factual or expert opinion support. *See id.* at 10-11.

Prior to the Board's May 3 ruling on NIRS/PC's second motion to amend contention NIRS/PC EC-4, the Board held an evidentiary hearing in Hobbs, New Mexico, during which it took testimony and evidence from LES, NIRS/PC, and the Staff on several contentions, including the contention NIRS/PC EC-4 challenges to the ER and DEIS discussions of deconversion impacts. *See* LBP-05-13, 61 NRC at 401-02; Tr. at 340-1692. On June 8, 2005, the Board issued its first PID regarding those contentions, determining, as relevant here, that NIRS/PC's contention EC-4 challenges could not be sustained in that the Staff's analysis in the DEIS adequately discussed the impacts of the construction and operation of a DUF₆ deconversion facility. *See* LBP-05-13, 61 NRC at 436. Because the

Board had not admitted any further amendment to EC-4, its PID relative to EC-4 represented its final determination with regard to that contention, *see id.* at 402 n.3, albeit one that could be appealed to the Commission, *see id.* at 446.

On June 23, 2005, NIRS/PC did in fact petition for Commission review of the Board's decision in LBP-05-13 with regard to each of the contentions litigated at the February 2005 hearing. *See* Petition on Behalf of [NIRS/PC] for Review of First Partial Initial Decision on Environmental Contentions (June 23, 2005). As is relevant here, NIRS/PC averred that "[t]he Board erred in refusing to allow NIRS/PC to show the environmental impacts of waste disposal" when it declined to admit the amendments to contention NIRS/PC EC-4 proffered by NIRS/PC in October 2004 and February 2005. *See id.* at 14-15.

In an October 19, 2005 issuance, the Commission ruled that "the Board erred in not admitting for hearing an amended contention on the environmental impacts of depleted uranium disposal." CLI-05-20, 62 NRC at 524. In this regard, the Commission directed the Board to consider the text and bases of the October 2004 amendment proffered by NIRS/PC, and to address the February 2005 motion only to the extent it legitimately amplified or elaborated upon the arguments made in the October 2004 motion. *See id.* at 532, 533 n.49. Further, in remanding the contention NIRS/PC EC-4 "impacts" matters to the Board, the Commission indicated that the issues likely could be given consideration in conjunction with the Board's upcoming evidentiary hearing on various other NIRS/PC contentions, or could be amenable to summary disposition. *See id.* at 524-25, 533 n.48. And with respect to the latter procedural mechanism, the Commission made specific mention of an issue raised by NIRS/PC in paragraph C of their October 2004 contention motion about the adequacy of the DEIS models used for deep disposal impacts analysis, stating:

NIRS/PC's support for their challenge to the DEIS estimate of doses from a geological repository is more sparse. They question whether the DEIS used the same models used in the earlier *Claiborne* proceeding because, they say, it is not clear how the DEIS used the earlier *Claiborne* dose estimates to calculate new estimates. Given corrections made in the FEIS, this issue appears amenable to summary disposition. Significantly, the NRC Staff in the FEIS clarified that the same models used in the *Claiborne* proceeding were used, and apparently has corrected the DEIS dose discrepancy highlighted by NIRS/PC. *See* LES FEIS (NUREG-1790), Vol. 1 at 4-64. If NIRS/PC actually mean to challenge the dose estimates used in the *Claiborne* proceeding, such a challenge appears untimely, given that the LES Environmental Report said that it was relying on the *Claiborne* dose estimates. Similarly, if NIRS/PC seek to challenge the dose analysis because it is based upon two representative disposal sites, such a claim seemingly also could have been based upon the Environmental Report, which addressed the same two representative sites.

Id. at 533 n.48.

On October 24-27, 2005, the Board held the scheduled evidentiary hearing on the subject of the remaining admitted NIRS/PC contentions, *see* Tr. at 1738-3179,⁵ and, with the agreement of the parties, heard testimony and received evidence from each of the parties regarding the sufficiency of the Staff's review in the FEIS of the impacts of disposal of depleted uranium from the NEF, *see* Tr. at 2607-3083. During that hearing, the Board also heard argument on an October 25, 2005 LES motion in which it asserted, among other things, that the NIRS/PC paragraph C-based challenges should be dismissed as moot. The Board declined to accept that LES assertion, and instead directed that the Staff and NIRS/PC file dispositive motions regarding the matters at issue in paragraph C. *See* Tr. at 2597-2600.

Following the conclusion of the October 2005 evidentiary hearing, NIRS/PC filed a motion with the Board, once again seeking the admission of an amendment to contention NIRS/PC EC-4. *See* Motion on Behalf of Intervenors [NIRS/PC] for Admission of Supplemental and Additional Late-Filed Contentions Under 10 CFR 2.309(c) (Nov. 11, 2005) [hereinafter November Contention Motion]. Specifically, with that motion NIRS/PC seek to add two paragraphs challenging as insufficient the FEIS analysis of the impacts of waste disposal, in that (1) the Staff's discussion of near-surface disposal of large amounts of depleted uranium from an enrichment facility did not satisfy its obligation to take a "hard look" at the impacts of such disposal, and (2) the FEIS fails adequately to disclose the models and parameter values used in its analysis of the impacts of deep geologic disposal, and the results of that analysis cannot be reproduced by NIRS/PC based on the available information. *See id.* at 8-14. LES and the Staff filed responses to this motion on, respectively, November 28 and 29, 2005, each objecting to the admission of any additional amendment to contention NIRS/PC EC-4 on both timeliness and general admissibility grounds. *See* NRC Staff Response to Motion on Behalf of Intervenors [NIRS/PC] for Admission of Supplemental and Additional Late-Filed Contentions Under 10 C.F.R. § 2.309(c) (Nov. 29, 2005); [LES] Response to Intervenors' Supplemental and Additional Late-Filed Contentions (Nov. 28, 2005). The Board issues a separate ruling today on that motion, denying the NIRS/PC request to amend/supplement contention NIRS/PC EC-4. *See* Contention Amendment Ruling at 16-17. To the extent that ruling impacts the issues before the Board in the context of NIRS/PC's most recent

⁵ Although the October 2005 evidentiary hearing was conducted as a nonpublic session because of concerns about the use of proprietary information, redacted versions of the transcripts for those proceedings subsequently were placed on the public record and are available via the agency's Agencywide Documents Access and Management System (ADAMS) electronic document search and retrieval system. *See* Licensing Board Memorandum (Public Availability of Previously Withheld Transcripts and Exhibits from October 2005 Evidentiary Hearing) (Jan. 9, 2006) (unpublished).

motion to amend EC-4, we discuss those implications in the context of our ruling herein.

Relatedly, while this NIRS/PC contention motion was pending before the Board, the Staff and NIRS/PC filed motions for full or partial summary disposition of a portion of remanded contention NIRS/PC EC-4, which are the subject of the Board's instant ruling. *See* NRC Staff Motion for Summary Disposition (Nov. 18, 2005) [hereinafter Staff Dispositive Motion]; Motion for Partial Summary Disposition Submitted on Behalf of Intervenors [NIRS/PC] (Nov. 18, 2005) [hereinafter NIRS/PC Dispositive Motion]. These cross-motions were followed by responses from LES, NIRS/PC, and the Staff to the positions of the other parties, as well as NIRS/PC and Staff replies to those responses. *See* NRC Staff Reply to Responses of LES and NIRS/PC to NRC Staff's Motion for Summary Disposition (Dec. 8, 2005) [hereinafter Staff Reply]; Reply on Behalf of Intervenors [NIRS/PC] to Response by [LES] to NRC Staff Motion for Summary Disposition and to NIRS/PC Motion for Partial Summary Disposition (Dec. 8, 2005) [hereinafter NIRS/PC Reply]; [LES] Response to Motions for Summary Disposition Filed by NRC Staff and by [NIRS/PC] (Nov. 28, 2005) [hereinafter LES Response]; NRC Staff Response to NIRS/PC's Partial Motion for Summary Disposition (Nov. 28, 2005) [hereinafter Staff Response]; Response on Behalf of [NIRS/PC] to NRC Staff Motion for Summary Disposition (Nov. 28, 2005) [hereinafter NIRS/PC Response]. Below, we describe the positions set forth in those dispositive motions and the responses and/or replies of the various parties to the Staff and NIRS/PC motions.

B. Staff and NIRS/PC Dispositive Motions and Parties' Responsive Pleading

1. Staff Dispositive Motion

In its dispositive motion, the Staff asserts it is entitled to summary disposition regarding that portion of contention NIRS/PC EC-4 in which NIRS/PC contend that the Staff's environmental impact analysis fails to support or explain the modeling of disposal of depleted uranium. In support of its motion, the Staff provides a statement of material facts not in issue that lists nine items, as well as the affidavits of (1) Dr. Donald E. Palmrose, a Staff contractor who asserts he developed or contributed to the DEIS and FEIS sections and appendices outlining both the public and occupational health impacts of the proposed NEF under normal operations and the waste management impacts, included disposal of depleted uranium; and (2) Dr. Rateb Abu-Eid, a senior level advisor on waste management and environmental protection in the NRC's Office of Nuclear Material Safety and Safeguards, who declares he reviewed the dose impact analysis regarding deep disposal of depleted uranium that was presented in Appendix A of the CEC

FEIS. *See* Staff Dispositive Motion; *id.*, Statement of Material Facts on Which No Genuine Dispute Exists at 1-3 [hereinafter Staff Material Facts Statement]; *id.*, Attach. A at 1 (Affidavit of Donald E. Palmrose) [hereinafter Palmrose Aff.]; *id.*, Attach. B at 1-2 (Affidavit of Dr. Rateb Abu-Eid) [hereinafter Abu-Eid Aff.].

According to the Staff, in its remand determination relative to contention NIRS/PC EC-4, the Commission limited the matter sent back to the Board, at least with regard to the matters raised by paragraphs C and K, to the question of whether the DEIS for the NEF failed to disclose the models or parameters used in assessing the impacts of mine disposal. The Commission did not, the Staff declares, send back any NIRS/PC assertions in their October 2004 or February 2005 supplemental filings seeking to challenge the use of two hypothetical disposal sites, given that the LES ER utilized those same two sites in its disposal impacts analysis and such use was not contested by NIRS/PC. Further, according to the Staff, the Commission directed the Board to focus only on the terms and bases, here paragraph C, of the contention supplement submitted in October 2004 rather than the February 2005 filing, except to the extent the later filing elaborated on issues already raised in the October motion. The Staff thus declares that the language at issue relative to the October 2004 contention supplement concerns only the question of the adequacy of the models used in analyzing the CEC site by reason of the fact that the results reported in Table 4-19 the NEF DEIS were unlike any reported in connection with the CEC facility, with the additional elaboration from the February 2005 filing that (a) the Staff had failed to provide the methods and assumptions underlying the dose calculation; (b) the estimate for drinking water dose in a river scenario in connection with a sandstone/basalt site is almost 54,000 times lower in the NEF DEIS than in the CEC FEIS; and (c) the total dose estimates are different from those in the CEC FEIS by nearly a factor of two. *See* Staff Dispositive Motion at 4-5.

In addition, to provide background regarding the Staff's view as to the matters properly in contest with regard to the modeling of deep disposal impacts, the Staff explains in its motion that Table 4-19 of the NEF DEIS, which addresses deep disposal dose estimates, was developed based on the 1994 CEC FEIS which, in turn, looked at two postulated/generic mine disposal sites, one in granite and one in sandstone/basalt. Further, according to the Staff, the modeling for the CEC FEIS included potential water impacts at the sites and was based on the assumption that contaminated water would discharge into a well or river (referred to as the well scenario and river scenario, respectively). As part of its analysis for the NEF DEIS, the Staff concluded that it was appropriate to utilize the CEC modeling analysis in the DEIS with respect to the parameters used and, therefore, relied upon those CEC results in developing the NEF EIS disposal impacts assessment. *See id.* at 5-6; Staff Material Facts Statement at 2-3 (¶¶ 4-6).

As to the purported error identified in the NIRS/PC issue statement, the Staff declares that while the CEC FEIS divided the well and river scenario data into two

separate tables (Tables A.7 and A.8, respectively), the NEF DEIS consolidated the relevant information into one table (Table 4-19). Further, the Staff indicates, the CEC FEIS listed the estimated dose from each associated radionuclide separately, while the NEF DEIS listed the sum of the dose estimates from all the associated radionuclides, which the Staff then further revised upward to account for the expected increased quantity of waste material from the NEF relative to the CEC. *See* Staff Dispositive Motion at 6-7. Finally, the Staff notes that the June 2005 FEIS for the NEF also contains a Table 4-19, *see id.* at 7, which, as we discuss below, is substantially the same as Table 4-19 contained in the DEIS.

Relative to the issues it asserts are properly presented by the Commission remand, the Staff declares that the NIRS/PC concern about the lack of conformity between the CEC and NEF environmental statements, despite the use of the same models for analyzing the disposal impacts, involved a typographical error that was later corrected in the NEF FEIS. Also, the Staff maintains, the methodology it used in translating the CEC-related analysis to the specific circumstances of the NEF project has been fully disclosed and was used to generate the Table 4-19 values in the FEIS. *See id.* at 8.

In this regard, the Staff asserts that challenges to many aspects of this methodology by principal NIRS/PC witness Dr. Arjun Makhijani were litigated in the CEC case and upheld by the Licensing Board there, which also found reasonable the Staff's environmental analysis of dose estimates relative to the CEC facility. Moreover, according to the Staff, its reliance upon the CEC NEPA analysis for compiling the NEF DEIS was based on a separate Staff determination that the CEC analysis was appropriate and reasonable, an analysis that was recently confirmed by Dr. Abu-Eid. This, the Staff asserts, is sufficient to justify incorporating the CEC analysis into the NEF DEIS and FEIS. *See id.* at 9-10; Staff Material Facts Statement at 3 (¶¶ 6, 9).

As to the specific challenges to the reported results of using that analysis in the DEIS, the Staff recognizes there was an error in the text of the CEC FEIS relative to the figure for the total dose estimate for the river scenario drinking water pathway for the sandstone/basalt site in Table A.8, which should have been 1.6×10^{-14} sievert (1.6×10^{-9} millirem) rather than the listed 1.6×10^{-9} sievert (1.6×10^{-14} millirem). Staff incorporation of this incorrect value into the NEF DEIS resulted in the NEF radiological dose listed in Table 4-19 being 54,000 times lower than in the CEC FEIS, a mistake the Staff corrected in the NEF FEIS (namely, a change from 3×10^{-16} millisievert (3×10^{-14} millirem) to 3×10^{-11} millisievert (3×10^{-9} millirem)). Additionally, the Staff notes that it corrected a second typographical error by changing the river scenario drinking water pathway dose for the granite disposal site from 3×10^{-11} millirem to 9×10^{-11} millirem. *See* Staff Dispositive Motion at 10-11; Staff Material Facts Statement at 3 (¶ 7).

The Staff further declares that the NIRS/PC concern that the total dose estimates for the NEF DEIS and the CEC FEIS differ by a factor of nearly two is adequately

explained in the NEF FEIS in its recognition that potential impacts from the disposal of NEF depleted uranium for similar geologic sites would be proportional to the postulated quantity of material. According to the Staff, since there is a larger quantity of NEF material (i.e., 157,000 metric tons for NEF versus 91,000 metric tons for CEC, or 1.72 times as much for the NEF), the estimated doses stated in the NEF DEIS reflected that difference relative to those stated in the CEC FEIS. *See* Staff Dispositive Motion at 11-12; Staff Material Facts Statement at 3 (¶ 8).

As noted above, relative to the NIRS/PC challenge in the October 2004 amended contention that the DEIS addresses only two hypothetical deep disposal sites, the Staff asserts that this matter is not subject to further litigation because the Commission did not disagree with the Board's ruling that this aspect of the amendment was foreclosed as untimely, given that the LES ER also relied upon the two hypothetical site approach. There being no significant difference between the ER and the DEIS/FEIS, rejection of this portion of the contention as untimely was appropriate. Additionally, the Staff asserts, even if this matter is properly before the Board, summary disposition in favor of the Staff is appropriate because, as was the case at the time the adequacy of the CEC FEIS was litigated, there is no currently existing licensed mine, or any pending application to license such a facility, so as to preclude a site-specific assessment of deep disposal impacts. *See* Staff Dispositive Motion at 13-15.

Finally, in its motion the Staff takes issue with several items raised by NIRS/PC at the October 2005 evidentiary hearing that it considers new claims, asserting that these should be denied for failure to submit them as late-filed contentions, or amendments to existing contentions. Further, asserts the Staff, as a substantive matter those new claims fail based on the affidavits of Dr. Palmrose and Dr. Abu-Eid, which demonstrate the CEC dose impact analysis was reasonable and appropriate for the NEF EIS, as well as Dr. Palmrose's explanation of how the values for Table 4-19 of the NEF FEIS were generated. *See id.* at 15.

2. NIRS/PC Dispositive Motion

In their dispositive motion, based on a statement of material facts not in dispute that includes eighteen items and the attached declarations of Dr. Arjun Makhijani, Director of the Institute for Energy and Environmental Research, and professional hydrologist George Rice, NIRS/PC assert that relative to the NEF DEIS and FEIS, they are entitled to judgment in their favor regarding contention NIRS/PC EC-4 to the degree that those environmental documents contain dose results relative to deep disposal of DU that lack a demonstrable basis in scientific data or analysis, and because the dose estimates grossly understate the potential impacts of such disposal. *See* NIRS/PC Dispositive Motion at 2-3; *id.*, Statement of Undisputed Facts Submitted on Behalf of Intervenors [NIRS/PC] in Support of Motion for

Partial Summary Disposition [hereinafter NIRS/PC Material Facts Statement]; *id.*, Declaration of Arjun Makhijani; *id.*, Declaration of George Rice.

Initially NIRS/PC assert that, because scientific results can have no credibility if they cannot be reproduced from source data, and because the CEC FEIS does not include the necessary source data or disclose the modeling methodology used sufficient to allow reproduction of the Table 4-19 results, the information in the CEC FEIS cannot be given any credence. NIRS/PC also maintain that while the stated NEF DEIS results regarding the DU disposal impacts appear to be consistent with the stated DEIS premise that NEF impacts will be proportional to the CEC based on disposal quantities (i.e., a ratio of 1 to 1.72), both in its response to a NIRS/PC interrogatory requesting impact modeling information and in the NEF FEIS, the Staff has failed to provide any discussion of the waste configuration as compared to the CEC FEIS or any justification for concluding that asserted linear relationship is appropriate. *See* NIRS/PC Dispositive Motion at 3-4; NIRS/PC Material Facts Statement at 3, 5 (¶¶ 4, 7).

In particular, NIRS/PC find that dose values for the CEC FEIS well-water scenario for the hypothetical granite and sandstone/basalt sites are much too low, with the former having a thorium concentration of one atom per liter while the latter has a uranium-234 (U-234) concentration of one atom per 200 liters and a thorium concentration of one atom per 1.9 million liters. So too, according to NIRS/PC, the implied thorium concentration figure of two atoms per liter and its radium-226 concentration of one atom per 28 liters for the CEC FEIS river scenario at the granite site is very low. Moreover, NIRS/PC declare, although the CEC FEIS states that depleted U_3O_8 would be the disposal form for depleted uranium from that facility, their expert's analysis suggests that CEC modeling actually assumed, without explanation, the dominant solid phase for depleted uranium would be UO_2 , which would produce solubility values that are lower by several orders of magnitude than would be produced for U_3O_8 , such as to introduce a nonconservative bias into the analysis that would cause erroneous results. *See* NIRS/PC Dispositive Motion at 4-5, 8-9; NIRS/PC Material Facts Statement at 5.

In addition, aside from asserting the CEC FEIS groundwater flow and radionuclide transport modeling analyses are inadequate because the specifics of such modeling are not adequately disclosed in the CEC FEIS and so cannot be reproduced, NIRS/PC also declare the reference on page A-13 of the CEC FEIS to a retardation coefficient in the range of 1200 is another nonconservatism that would cause erroneous results. Finally, NIRS/PC maintain that without knowing the specific parameter values used at each step of the CEC modeling exercise, the data source for the values, and how the models were used in conjunction with such values, it is impossible to discern what other errors lie behind the modeling results reported in the CEC FEIS, or may have been transferred to Table 4-19 of the NEF DEIS and FEIS. *See* NIRS/PC Dispositive Motion at 5-6, 8-9; NIRS/PC

Material Facts Statement at 6-7. According to NIRS/PC, by seeking to quantify the environmental impacts of the NEF without sufficient supporting data or a sufficient explanation, the NEF DEIS and FEIS violate NEPA. *See* NIRS/PC Dispositive Motion at 6-8 (citing 10 C.F.R. §§ 51.45, 51.71; *Land Council v. Powell*, 395 F.3d 1019, 1027 (9th Cir. 2005); *Boston Edison Co.* (Pilgrim Nuclear Generating Station, Unit 2), ALAB-479, 7 NRC 774, 779 (1978); *Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), LBP-04-4, 59 NRC 129, 149 (2004)).

The result of these various errors or uncertainties, according to NIRS/PC, is to render the NEF DEIS and FEIS analyses of deep disposal impacts inadequate under NEPA and the relevant Commission rules so as to require a new Staff impacts analysis.

3. *LES Response to Staff and NIRS/PC Dispositive Motions*

In its response to the Staff and NIRS/PC motions, LES asserts that, given the scope of what is actually before the Board in conjunction with the Commission remand, the Staff clearly is entitled to summary disposition. According to LES, the remanded issue concerns only whether the NEF DEIS/FEIS are based on the same models used in connection with the CEC FEIS, and how they were used, matters LES asserts are amenable to summary disposition in accordance with the Staff motion. *See* LES Response at 8.

Initially, LES declares there can be no dispute regarding the Staff's reliance in preparing the NEF DEIS and FEIS upon the results of the CEC FEIS analysis, as emphasized in a November 2004 Staff interrogatory answer. Additionally, LES asserts that in its dispositive motion the Staff recognizes and addresses fully the three items that NIRS/PC added in their February 2005 elaboration on their October 2004 attempt to supplement contention EC-4, namely that (1) the Staff had declined to provide the methods and assumptions underlying its DEIS/FEIS dose calculations, (2) the total dose estimates are different from those in the CEC FEIS by nearly a factor of two, and (3) the estimate for the river dose scenario with a sandstone/basalt site is almost 54,000 times lower in the DEIS than in the CEC FEIS, so as to render all those matters moot. As to the first item, LES points to the discussion in Dr. Abu-Eid's affidavit regarding the methodology underlying the CEC analysis, as well as the fact that the methodology is amply discussed in the CEC FEIS at pages 4-46 to 4-48 and Appendix A. Regarding the second point, the factor of two difference, LES avers that this is fully explained by the Staff as based on the greater production of DU at the NEF relative to the CEC. So too, LES maintains, the issue of the NEF DEIS river dose scenario estimate that is purported to be 54,000 times lower is fully dealt with by the Staff in its acknowledgment that this was caused by an error in the CEC FEIS text (which was improperly transferred to the NEF DEIS, rather than the correct value

from the CEC FEIS tables) and later corrected in the NEF FEIS. In addition, LES declares, the Staff has acknowledged a second FEIS correction regarding a typographical error that, as Dr. Palmrose explained, was corrected by changing the river scenario drinking water pathway dose for the granite disposal site. *See id.* at 8-11.

Additionally, LES finds that the seven items NIRS/PC seek to assert in their dispositive motion relative to the FEIS are, in fact, an attempt to raise untimely challenges to the adequacy of the CEC FEIS. Noting that many of the issues are also raised in the context of the pending November 2005 NIRS/PC motion to amend contention EC-4, LES declares that because its ER for the NEF identified and relied upon the CEC FEIS dose evaluation, all these NIRS/PC concerns about the CEC FEIS analysis were untimely. *See id.* at 11-13. LES also asserts that the NIRS/PC challenge to the Staff's reliance on the CEC FEIS dose analysis based on its failure to provide a detailed explanation of the CEC analysis sufficient to allow that analysis to be recreated and retested is inconsistent with prior Board and Commission rulings in this case regarding the propriety of Staff reliance on a Department of Energy (DOE) programmatic environmental impact statement (PEIS) and site-specific FEISs relative to DOE's Portsmouth and Paducah deconversion facilities. *See id.* at 14-15 (citing CLI-05-28, 62 NRC at 730; LBP-05-13, 61 NRC at 405).

4. Staff Response to NIRS/PC Dispositive Motion

In its response to the NIRS/PC motion, the Staff asserts initially that the sandstone/basalt site river scenario drinking water dose and the "factor of 2" total dose estimate matters regarding the NEF DEIS that were the focus of the Commission's remand were not addressed by NIRS/PC in their motion. Instead, according to the Staff, NIRS/PC now seek to focus on purported deficiencies in the NEF FEIS relative to its reliance upon the CEC FEIS, which it can only do by way of the late-filed contention amendment that is pending separately with the Board. Moreover, according to the Staff, because the NEF ER and the Staff's DEIS for that facility clearly relied upon the CEC FEIS, such a late-filed amendment raising these new challenges to the CEC FEIS analysis in the context of the NEF FEIS is not admissible. *See* Staff Response at 6-7.

And as to the specific NIRS/PC challenges to the FEIS as set forth in their motion and the supporting statement of material facts not at issue, the Staff contests the last twelve issue statements by NIRS/PC. It asserts that a NIRS/PC challenge to the use of two representative sites, as opposed to performing a site-specific analysis, is immaterial as not within the scope of the Commission remand regarding contention NIRS/PC EC-4. The Staff finds the other eleven items raising various NIRS/PC concerns regarding the NEF FEIS are outside the scope of the remand and so immaterial as well. In addition, however, it declares

that the Commission in CLI-05-28 recently rejected the NIRS/PC view regarding the need for extensive Staff reanalysis and explanation prior to incorporation of other analyses and data into an environmental impact statement. Instead, the Staff maintains, such incorporation is appropriate after reasonable and appropriate consideration by responsible personnel, as the Staff has established was done here by the affidavits included with its dispositive motion. Moreover, as to the solubility value and retardation coefficient matters, the Staff indicates that both are merely attempts to relitigate matters already considered and rejected in the *Claiborne* proceeding based on the distinction between near-surface and deep disposal. Finally, the Staff urges the Board to reject the NIRS/PC arguments that extremely low doses in the CEC FEIS impacts analysis are indicative of significant analytical errors that must be reviewed and corrected as conjecture in light of the Staff's independent analysis of the CEC FEIS's deep disposal impacts analysis and the fact that the CEC FEIS emplacement horizons were envisioned as being well below the water table. *See id.* at 8-12 & n.12.

5. NIRS/PC Response to Staff Dispositive Motion

NIRS/PC assert in their response that the Staff's attempt to support its failure to provide an adequate explanation regarding the basis for its reliance upon the CEC FEIS in analyzing deep disposal impacts with the affidavits of Staff witnesses stating they found the analysis "reasonable," does not comport with the requirements of NEPA, implementing NRC regulations, and agency and judicial precedent that require the agency to set forth the data and methodologies underlying its analyses rather than rely on mere assertions. *See* NIRS/PC Response at 3, 9. NIRS/PC assert that because the Staff is unable to explain how the results in Table 4-19 were derived in the face of assertions by NIRS/PC experts that the information the Staff made available in the CEC FEIS and the NEF FEIS is insufficient to reproduce the results the Staff published, summary disposition is inappropriate. Indeed, according to NIRS/PC, a careful reading of the Staff affidavits makes clear that the Staff itself did not try to reproduce the CEC modeling and results, and in fact did not have access to a number of the critical elements necessary to undertake that analysis. Rather, the Staff merely looked at what was available and declared it "reasonable," a critique that is insufficient to support summary disposition, particularly in the face of Dr. Makhijani's declaration that the supposed analysis of deep disposal impacts produces incredibly low dose values and grossly differs from two recent analyses of the same subject. *See id.* at 2-6.

Finally, in their response NIRS/PC also take issue with the relevance of the Staff reference to the fact that some issues relative to the CEC FEIS deep disposal analysis were litigated previously, given that NIRS/PC were not parties to that litigation and, in any event, the *Claiborne* Licensing Board's holdings on those

matters were vacated following the withdrawal of the CEC application. Also inapposite, NIRS/PC assert, is the Commission's recent holding regarding Staff reliance upon the NEPA analyses of other agencies, given that here, unlike in the case of its reliance upon the DOE PEIS, the Staff does not have the supporting documentation to review, but must rely on a rubber stamp assertion of reasonableness for a study that cannot be reproduced or defended. *See id.* at 8-10.

6. Staff Reply to LES and NIRS/PC Responses

Again asserting that the Commission's remand provides only for consideration of issues raised in the October 2004 NIRS/PC contention motion, as elaborated on in their February 2005 motion, the Staff reiterates that NIRS/PC have done nothing to counter the validity of its showings regarding the sandstone/basalt site river scenario drinking water dose and the "factor of 2" total dose estimate matters regarding the NEF DEIS, and that, relative to the CEC FEIS, the Staff has complied with recent Commission guidance regarding reliance on an EIS prepared by another entity. The Staff also rejects the NIRS/PC arguments regarding the application of 10 C.F.R. §§ 51.45 and 51.71, asserting that neither provides a basis for providing an EIS description to such a level of detail that it can be duplicated by members of the public, so as to permit an individual to run applicable computer codes or make other detailed computations. So too, the Staff finds the *Catawba* and *Lands Council* cases cited by NIRS/PC to be inapposite, the former because it stands only for the proposition that the Staff must provide an impact analysis in quantitative rather than qualitative terms if it has the relevant information, while the latter makes no holding about the level of scientific detail that must be included in an EIS discussion. Finally, the Staff declares that its reference to Dr. Makhijani's challenges to the CEC FEIS in the *Claiborne* case was posited as support for the proposition that the CEC FEIS analysis apparently was sufficiently detailed to permit him to raise a challenge in that instance, though not then a witness for or representative of NIRS/PC. *See Staff Reply* at 4-9.

7. NIRS/PC Reply to LES Response

In their reply to the LES response, NIRS/PC make three points. NIRS/PC first declare that the argument that a challenge should have been made to the LES ER in the first instance is inapposite because the LES reference to the CEC FEIS in the ER did not contain the dose results that the Staff have presented in Table 4-19, either as issued in the DEIS or corrected in the FEIS. According to NIRS/PC, they were not required to scour the entire CEC FEIS for errors based on an LES reference to that document as establishing that estimated deep disposal facility impacts would be "less than 0.25 [millisieverts per year] (25 [millirem

per year]).” *See* NIRS/PC Reply at 2-6 (citing NIRS/PC Exh. 133, at 4.13-14 (National Enrichment Facility, Environmental Report, Ch. 4, Revision 2 (July 2004))). NIRS/PC further maintain that 10 C.F.R. § 2.309 requires that contentions addressing deficiencies in NEPA documents be based on those documents, not other documents to which those NEPA documents might refer, and are required to be put forth only when the disclosure at issue is published. NIRS/PC assert that they had no obligation to go behind the ER and examine documents referred to in the ER, or seek deficiencies in those documents or advance contentions about such documents that are not part of the NEPA disclosure for the NEF. Rather, under section 2.309, only when the DEIS was issued with Table 4-19 did NIRS/PC have any obligation to advance a contention, given that the DEIS differed significantly from the ER in this regard. NIRS/PC also declare that the Commission’s remand decision did not in any way decide this issue, but left it to the Board to decide based on any analysis of the specific factual situation relative to the NEF ER. *See id.* at 5-8.

In response to the LES claim that the NIRS/PC contention is moot as to deep disposal because the Staff has explained how it took the figures from the CEC FEIS, made adjustments and errors, and later fixed the errors, NIRS/PC again state that the Staff’s assertion that it finds the CEC FEIS analysis reasonable is not enough to provide the needed scientifically traceable trail, particularly when the ER did not contain or make reference to the dose results in Appendix A to the CEC FEIS, the source for Table 4-19. Nor is the LES claim that NIRS/PC have failed to challenge the CEC FEIS analysis of any significance, NIRS/PC assert, because this fails to recognize that the CEC analysis only has meaning in the context of the NEF DEIS, where it was used by the Staff to justify Table 4-19. *See id.* at 8-11.

Finally, as to the LES argument that the Staff can rely upon the CEC FEIS analyses in projecting impacts, NIRS/PC argue that there are limits to the Staff’s power to use analyses in previous documents. According to NIRS/PC, the critical solubility values are undeniably low, but the input data used for the CEC calculations cannot be reproduced. Because the agency cannot understand the CEC analyses in order to conduct an assessment of those analyses, NIRS/PC declare, it has no legitimate basis for making a decision regarding the validity of the analysis. *See id.* at 12.

II. ANALYSIS

A. Dispositive Motion Standard

The well-established standard governing the grant of summary disposition under 10 C.F.R. § 2.710⁶ has been described as follows:

Under 10 C.F.R. § 2.749(a), (d), summary disposition may be entered with respect to any matter (or all of the matters) in a proceeding if the motion, along with any appropriate supporting material, shows that there is “no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.” The movant bears the initial burden of making the requisite showing that there is no genuine issue as to any material fact, which it attempts to do by means of a required statement of material facts not at issue and any supporting materials (including affidavits, discovery responses, and documents) that accompany its dispositive motion. An opposing party must counter each adequately supported material fact with its own statement of material facts in dispute and supporting materials, or the movant’s facts will be deemed admitted. *See Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102-03 (1993).

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-02-20, 56 NRC 169, 180 (2002).

B. Application to Staff and NIRS/PC Dispositive Motions

The parties’ motions present several different issues for resolution, which we deal with below.

1. *Challenges to DEIS Figures Regarding “Factor of 2” and “54,000 Times Lower Dose”*

Although there is a substantial dispute among the parties concerning the scope of the Commission’s remand to the Board regarding contention NIRS/PC EC-4, one thing that is clear is that the Commission returned to the Board for further consideration the merits of the two particular DEIS discrepancies alluded to by NIRS/PC in their October 2004 contention amendment and set forth specifically in their February 2005 supplement, namely (1) the Staff-acknowledged exponent transposition error in CEC FEIS Table A.8 sandstone/basalt site river scenario

⁶ Prior to the January 2004 revision of the NRC’s Part 2 procedural rules, 10 C.F.R. § 2.749 governed summary disposition motions. Although the rule regarding summary disposition now appears in section 2.710, such change had no substantive impact on the standards governing dispositive motions. *See* 69 Fed. Reg. 2182, 2219 (Jan. 14, 2004).

drinking water pathway total dose estimate (i.e., the listed 1.6×10^{-9} sievert (1.6×10^{-14} millirem) should have been 1.6×10^{-14} sievert (1.6×10^{-9} millirem)), that resulted in the NEF DEIS Table 4-19 radiological dose being 54,000 times lower than in the CEC FEIS; and (2) the depleted uranium disposal total dose estimates for the CEC FEIS and the NEF DEIS differing by a factor of nearly two. In its motion, as supported by the accompanying affidavit of Dr. Palmrose, the Staff explained that the former error was corrected in the NEF FEIS by a change in Table 4-19 from 3×10^{-16} millisievert (3×10^{-14} millirem) to 3×10^{-11} millisievert (3×10^{-9} millirem),⁷ while the latter is explained fully in the NEF FEIS with its recognition that potential impacts from the disposal of NEF depleted uranium for similar geologic sites would be proportional to the postulated quantity of material, meaning that the larger quantity of NEF material, i.e., 157,000 metric tons for the NEF versus 91,000 metric tons for the CEC, or 1.72 times as much for the NEF, correlates to the estimated difference in doses between the NEF DEIS and the CEC FEIS.

As the Staff points out in its responsive filings, NIRS/PC have not presented a substantive challenge to the validity of either of these corrections, other than in the context of their general assertions that (1) the purported linear relationship between the “factor of 2” difference in the CEC and NEF doses as being based on the differences in the amount of DU produced at each facility has not been established; and (2) the CEC FEIS impacts analysis for depleted uranium disposal cannot be utilized to support any aspect of the Staff’s environmental analysis for the NEF because the Staff is unable to provide the information necessary to allow NIRS/PC to reproduce this information. We address the latter challenge in section II.B.3, below. As to the former, in the context of contention EC-4 as admitted by the Commission, in which NIRS/PC, while acknowledging that the quantity of DU at issue at least “partly” explained the difference, proffered as a challenge only that the estimate for the drinking water dose in the river scenario with a sandstone/basalt site is almost 54,000 times lower in the DEIS than in the CEC FEIS, *see* February Contention Motion at 17, the failure of NIRS/PC now to raise any challenge to the Staff’s correction in the NEF FEIS of the “54,000 times lower dose” item essentially renders this aspect of the remanded NIRS/PC challenge moot. In other words, NIRS/PC have raised no litigable challenge to the “factor of two” relationship,⁸ and have likewise set forth no challenge to

⁷The second typographical error in the NEF FEIS regarding the river scenario drinking water pathway dose for the granite disposal site, which required a change in Table 4-19 from 3×10^{-11} millirem to 9×10^{-11} millirem for that scenario pathway, *see* Staff Dispositive Motion at 11, has not been the subject of any NIRS/PC challenge.

⁸*See Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-94-6, 39 NRC 285, 306-07 (1994) (something more than suspicions or bald assertions are necessary as the basis for
(Continued)

the Staff's correction in the NEF FEIS of that error resulting in a reported dose in the DEIS approximately 54,000 times lower than that reported in the CEC FEIS. Accordingly, as to this aspect of contention NIRS/PC EC-4 as remanded by the Commission, the Board finds that the Staff has established that there are no disputed material factual issues and that the Staff is entitled to judgment in its favor as a matter of law.

2. Other Challenges to DEIS/FEIS Deficiencies

In addition to the two error corrections discussed in section II.B.1, above, the only other substantive difference between the NEF DEIS and FEIS is the revision in Table 4-19 of the figure for the river scenario drinking water pathway dose for the granite disposal site, which the Staff has revised from 3×10^{-11} millirem to 9×10^{-11} millirem to correct a purported typographical error. Under the circumstances here, the validity and significance of this FEIS-related change is a matter the Board would have allowed NIRS/PC to contest at this juncture, notwithstanding the fact that such a challenge otherwise might fall well outside of what would be considered timely under the late-filing standards of section 2.309(c) and (f)(2). *See* Tr. at 2597-98.

NIRS/PC have not mounted such a challenge here. Instead, in their partial summary disposition motion, NIRS/PC seek to interpose a number of other challenges to the validity of the FEIS and the DEIS, many of which are repeated in a motion to admit a late-filed amendment to EC-4 that is also the subject of a separate Board ruling issued today, including assertions that CEC FEIS U-234 and thorium sandstone/basalt site drinking water dose concentrations and the thorium and radium-226 river scenario concentrations are “so low as to be incredible”; inappropriately low solubility values result from CEC modeling that assumes, without explanation, that the dominant solid phase for DU would be UO_2 rather than U_3O_8 ; and CEC modeling of flow of groundwater and transport of radionuclides, the specifics of which were not disclosed, used “inappropriately high retardation factors.” But these challenges to the CEC FEIS, applicable to the DEIS by reason of its incorporation of the CEC FEIS generic site-related analysis of deep disposal impacts, were not timely raised by NIRS/PC in contesting the DEIS. Given the scope and terms of the Commission's remand, we are unable to see how these matters can be raised now.⁹ Accordingly, relative to the NIRS/PC

any purported material factual disputes), *aff'd sub nom. Advanced Medical Systems, Inc. v. NRC*, 61 F.3d 903 (Table) (6th Cir. 1995) (per curiam).

⁹ It seems apparent from the Commission's remand that it wishes the Board to consider, to the extent appropriate, the timeliness of any NIRS/PC challenges to the DEIS. *See* CLI-05-20, 62 NRC at 533 n.48.

motion asserting they are entitled to partial summary disposition regarding the inadequacy of the NEF DEIS/FEIS based these matters, we deny that motion.

3. Challenge to Overall Validity of Staff DEIS/FEIS Analysis as Based on Unavailable CEC FEIS Analysis

In their second contention EC-4-related challenge to the validity of the NEF DEIS/FEIS now before the Board, NIRS/PC assert that these documents, as well as the CEC FEIS upon which they rely, are inadequate to fulfill the agency's NEPA responsibilities. According to NIRS/PC, these environmental impact analyses fail to contain information that is adequate to enable other scientists to verify independently the dose results published in the DEIS/FEIS or, alternatively, to determine what other errors may be behind the modeling efforts underlying the CEC FEIS and, accordingly, the NEF DEIS/FEIS as they rely on the CEC FEIS.

We find this challenge unavailing for several reasons. Initially, we are unable to accept the apparent NIRS/PC postulate that a DEIS or FEIS is deficient per se unless its various NEPA findings include an explanation that is sufficient on its face to enable independent verification of any scientific results that underlie those findings. We are not aware of, nor has any party provided, judicial or agency authority that supports such a sweeping assertion.¹⁰

If there is a basis for this NIRS/PC challenge, it lies in the premise that, to the degree a Staff NEPA statement employs a scientific or technical analysis to make a finding regarding an environmental cost, benefit, or impact, the statement should cite the report, study, or other scientific analysis upon which it relies so that the source that supports its conclusion is clear. By the same token, the source document should support the finding that the Staff seeks to make in reliance on that reference. *See* CLI-05-28, 62 NRC at 730.

On this basis, we consider the nub of the NIRS/PC concern to be the validity of the CEC FEIS upon which the Staff places obvious, primary reliance in making the DEIS/FEIS section 4.2.14.4 findings that are the central subject of the instant Staff and NIRS/PC dispositive motions. And relative to the sufficiency of that report, putting aside the fact that principal NIRS/PC expert Dr. Makhijani is apparently intimately familiar with the CEC FEIS and its underlying scientific

¹⁰The *Land Council*, *Pilgrim*, and *Catawba* cases cited by Intervenors NIRS/PC do not support the broad assertion that a DEIS/FEIS must contain information adequate to enable scientists to verify independently the dose impact or other results published in those documents or, alternatively, to determine what other errors may be behind the modeling efforts underlying those documents or referenced supporting documents, but rather stand for the much narrower proposition that the Staff must provide an impact analysis in quantitative rather than qualitative terms if it has the information, albeit without making any holding regarding the level of scientific detail that must be included in such an EIS discussion. *See Land Council*, 395 F.3d at 1027-28; *Pilgrim*, ALAB-479, 7 NRC at 779; *Catawba*, LBP-04-4, 59 NRC at 149-50, 165.

basis, albeit as the witness for another party in a prior *LES* case, *see, e.g., Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-97-3, 45 NRC 99, 103 (1997), and the fact that, as the Commission recognized, there is a compelling argument that any CEC FEIS-related arguments should have been raised as part of the NIRS/PC challenge to the ER for the NEF, *see* CLI-05-20, 62 NRC at 533 n.48, the Board finds dispositive here the principal enunciated by the Commission in this case relative to Staff reliance on a prior environmental impact statement, albeit one from another federal agency.

In CLI-05-28, 62 NRC at 730, the Commission affirmed this Board's holding, as part of its NEPA findings, that the Staff could rely upon two DOE FEISs regarding environmental impacts expected from a DUF₆ conversion facility upon the basis that (1) the documents were publicly available; and (2) the NRC Staff's expert had "assessed the reasonableness of the DOE assumptions, calculations, and conclusions, even though he did not redo its underlying calculations." In this instance, relative to the CEC FEIS previously prepared by the NRC Staff, this document clearly is publicly available. Indeed, as we noted above, it was the subject of a previous adjudicatory hearing. Further, the Board has before it the affidavits of Drs. Palmrose and Abu-Eid, describing in detail how Staff experts, in preparing the NEF DEIS and FEIS, as well as the supporting information for the Staff's summary disposition motion, undertook a fresh review of the dose impact analysis contained in Appendix A to the CEC FEIS and concluded that, considering the generic nature of the analysis, the assumptions in the CEC FEIS Appendix A deep disposal analysis appear to be reasonable and appropriate for application in assessing the possible deep disposal doses relative to DU generated by the NEF.¹¹

¹¹ In this regard, Dr. Palmrose asserts that before the CEC FEIS analysis results were incorporated into the DEIS, a member of the Staff's NEF EIS team with expertise in hydrology reviewed the information in the CEC FEIS regarding the parameters and the models that were used and determined that they, along with the analytical results they produced, were appropriate. Dr. Palmrose also states he discussed the CEC deep disposal analysis with Dr. Abe Zeitoun, the NEF DEIS Project Manager, who was also CEC FEIS Project Manager, who declared that analysis was still reasonable and appropriate for the proposed NEF. *See* Palmrose Aff. at 2.

For his part, Dr. Abu-Eid states that he also has recently reviewed the dose impact analysis regarding the deep disposal of U₃O₈ presented in Appendix A to the CEC FEIS. According to Dr. Abu-Eid, that analysis, which was based on generic assumptions regarding two potential deep mine disposal sites, (1) provided a generic deep disposal site description and presented a summary of approaches and methodology of the dose analysis and estimates of the most sensitive flow path parameters, including hydraulic conductivity, flow area, and gradient; (2) identified certain chemical constituents of the deep groundwater with concentration ranges of these constituents, including the solubilities of uranium, thorium, and radium; (3) considered radionuclide transport through groundwater seeping vertically through the disposal facility to a more permeable unit (i.e., an aquifer); (4) assumed radionuclides would be dispersed horizontally through the aquifer by the predominately horizontal flow; and (5)

(Continued)

To be sure, as the Board outlined in sections II.B.2, .5, above, Intervenor NIRS/PC have proffered information they assert establishes that the CEC FEIS analysis is suspect as applied to the NEF, thereby rendering the NEF DEIS/FEIS in noncompliance with NEPA. Nonetheless, given the Commission's recognition that redoing calculations from another environmental impact statement "would be a duplication of resources not required by law," *id.*, and in light of the scope of contention NIRS/PC EC-4 as remanded by the Commission, we find that nothing presented by NIRS/PC creates a material factual dispute that precludes, or interposes a legal impediment to, a finding that the Staff has established that it is entitled to summary disposition in its favor regarding the deep disposal impacts aspect of remanded contention NIRS/PC EC-4.¹²

III. CONCLUSION

In connection with that aspect of Commission-remanded contention NIRS/PC EC-4, Impacts of Waste Storage and Disposal, concerning the NEF DEIS analysis of the impacts of deep disposal of NEF-generated DU, we conclude that (1) relative to Intervenor NIRS/PC's November 18, 2005 motion for partial summary disposition, summary disposition in their favor is not appropriate because the matters upon which they rely as a basis for their motion are not appropriately raised in the context of the issue as remanded by the Commission; and (2) relative to the Staff's November 18, 2005 summary disposition motion, the Staff having established there are no genuine issues as to any material fact and it is entitled to judgment as a matter of law regarding the deep disposal impact aspects of

analyzed two potential radiological exposure pathways, i.e., discharge in a river, and (under conditions not expected to occur), an individual obtaining water by drilling a deep well down-gradient from the disposal facility. While recognizing that CEC FEIS Appendix A did not provide detailed input and output of data and parameters and that a duplication of the Appendix A analysis cannot be made because of the lack of detailed input data and because some of the codes used in the assessment have been modified or updated, Dr. Abu-Eid nonetheless finds the assumptions for the deep disposal analysis in Appendix A of the CEC FEIS to be reasonable given the generic nature of the analysis, and further finds the analysis resulting from those assumptions to be reasonable and conservative considering the assumptions used for the exposure and transport scenarios. *See* Abu-Eid Aff. at 2-3.

¹² In their October 2004 paragraph C supplement, NIRS/PC make reference to NEF DEIS and CEC FEIS use of two hypothetical deep disposal sites, which NIRS/PC suggest is a deficiency because disposal site performance "is highly site-specific." October Contention Motion at 16. Even putting aside (again) the Commission's suggestion that this claim is untimely as really relating to the ER for the NEF, *see* CLI-05-20, 62 NRC at 533 n.48, given the NIRS/PC acknowledgment that this objection is only another variation on their central concern that the information underlying the CEC FEIS analysis is unavailable, *see* NIRS/PC Response at 8-9, the Board considers its ruling regarding that concern to be dispositive of NIRS/PC's hypothetical site assertion as well.

contention NIRS/PC EC-4 remanded by the Commission, a decision regarding this aspect of contention NIRS/PC EC-4 is rendered in favor of the Staff.¹³

For the foregoing reasons, it is, this third day of March 2006, ORDERED that:

1. The November 18, 2005 motion for partial summary disposition of Intervenor NIRS/PC regarding the Commission-remanded aspect of contention NIRS/PC EC-4 concerning the adequacy of the NEF DEIS analysis of the impacts of deep disposal of NEF-generated DU is *denied*.

2. The November 18, 2005 NRC Staff motion for summary disposition regarding the Commission-remanded aspect of contention NIRS/PC EC-4 concerning the adequacy of the NEF DEIS analysis of the impacts of deep disposal of NEF-generated DU is *granted* and a decision regarding this facet of contention NIRS/PC EC-4 is rendered in favor of the Staff.

THE ATOMIC SAFETY AND
LICENSING BOARD¹⁴

G. Paul Bollwerk, III, Chairman
ADMINISTRATIVE JUDGE

Paul B. Abramson
ADMINISTRATIVE JUDGE

Charles N. Kelber
ADMINISTRATIVE JUDGE

Rockville, Maryland
March 3, 2006

¹³ As is apparent from our rulings today regarding the NIRS/PC challenges to the Staff's NEPA assessment of the impacts of deep disposal and the adequacy of the Staff's analysis of the impacts of near-surface disposal, the Staff has analyzed the environmental impacts of both depleted uranium disposal options. As such, we need not resolve now the question of whether deep geologic disposal should be mandated for the NEF depleted uranium, an issue we will address when we rule on the question of the cost of disposal relative to contentions NIRS/PC EC-5/Technical Contention (TC)-2 and EC-6/TC-3.

¹⁴ Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Applicant LES, (2) Intervenor NIRS/PC, and (3) the Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

**Ann Marshall Young, Chair
Dr. Anthony J. Baratta
Nicholas G. Trikouros**

In the Matter of

**Docket No. 50-255-LR
(ASLBP No. 05-842-03-LR)**

**NUCLEAR MANAGEMENT COMPANY, LLC
(Palisades Nuclear Plant)**

March 7, 2006

In this license renewal proceeding the Licensing Board rules on various pending matters, finds that Petitioners have established interests sufficient to confer standing, but also finds that they have not submitted an admissible contention as necessary for the granting of a hearing, and therefore terminates the proceeding.

**RULES OF PRACTICE: STANDING TO INTERVENE;
INTERVENTION**

A petitioner's standing, or right to participate in a Commission licensing proceeding, is grounded in section 189a of the Atomic Energy Act (AEA), which requires the NRC to provide a hearing "upon the request of any person whose interest may be affected by the proceeding," and which has been implemented in Commission regulations as 10 C.F.R. § 2.309.

**RULES OF PRACTICE: STANDING TO INTERVENE;
INTERVENTION**

Judicial concepts of standing, to which licensing boards are to look in ruling on standing, provide the following guidance in determining whether a petitioner has

established the necessary “interest” under 10 C.F.R. § 2.309(d)(1): To qualify for standing a petitioner must allege (1) a concrete and particularized injury that is (2) fairly traceable to the challenged action and (3) likely to be redressed by a favorable decision, criteria commonly referred to, respectively, as “injury in fact,” causality, and redressability. The injury may be either actual or threatened, but must lie arguably within the “zone of interests” protected by the statutes governing the proceeding — here, either the Atomic Energy Act (AEA) or the National Environmental Policy Act (NEPA).

**RULES OF PRACTICE: STANDING TO INTERVENE;
INTERVENTION**

Individual Petitioners living within 50 miles of a nuclear power plant established standing based on the longstanding “proximity presumption” principle in NRC adjudicatory proceedings.

**RULES OF PRACTICE: STANDING TO INTERVENE;
INTERVENTION**

Public interest group petitioners established “representational” standing to proceed as intervenor parties based upon affected members authorizing the petitioner organizations to represent them in this proceeding.

RULES OF PRACTICE: CONTENTIONS

In ruling on admissibility of contentions, the Licensing Board did not consider anything not found in Petitioners’ original contentions, but provided in Petitioners’ Reply to NRC Staff’s and Applicant’s Answers to Petition, except to the extent that it constituted “legitimate amplification” of original contentions or properly late-filed material.

RULES OF PRACTICE: ATTORNEY CONDUCT

All counsel have a continuing duty to update a tribunal “of any development which may conceivably affect the outcome” of litigation, and NRC precedent also requires all parties to NRC proceedings to alert adjudicatory bodies to information relevant to matters being adjudicated.

RULES OF PRACTICE: ATTORNEY CONDUCT

Counsel have both an obligation to assure that representations made in all

pleadings “to the best of [their] knowledge, information and belief . . . are true,” and an ethical responsibility *not* to knowingly “make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer.”

RULES OF PRACTICE: DISCOVERY; DEPOSITIONS

There were no grounds to stay the proceeding to permit Petitioners’ Counsel to depose Staff Counsel; depositions of opposing trial or litigation counsel are permitted only if “no other means exist to obtain the information,” and the “information sought is relevant and non-privileged,” and “crucial to the preparation of the case,” none of which conditions existed in this case.

RULES OF PRACTICE: ATTORNEY CONDUCT; CONTENTIONS

Staff Counsel had a duty to inform the Board of a telephone call from a former expert witness of Petitioners because she knew that this information was “conceivably” relevant to a ruling on a contention. Expert support for a contention raising a technical issue can clearly be relevant to its admissibility (and by extension to the outcome) not only of a ruling on the admission of a contention, but also, through such a ruling, of the proceeding itself, since the failure to proffer an admissible contention will result in denial of a hearing petition. Nor did Counsel’s imparting of the information violate any ethical prohibitions, as the expert in question was not represented by Petitioners’ Counsel, the call was initiated by the expert, and no deception or coercion was in any way involved.

RULES OF PRACTICE: MOTIONS

There was no requirement that the information provided by Staff Counsel be in the form of a motion, and Petitioners’ Motion To Strike Counsel’s e-mail notification was therefore not granted; the information was placed in the record, all parties were appropriately apprised of it, and Counsel was seeking no action on the part of the Board.

RULES OF PRACTICE: CONTENTIONS

To intervene in an NRC proceeding, a petitioner must, in addition to demonstrating standing, submit at least one contention meeting the requirements of 10 C.F.R. § 2.309(f)(1). Failure of a contention to meet any of the requirements of section 2.309(f)(1) is grounds for its dismissal.

RULES OF PRACTICE: CONTENTIONS

The “strict contention rule serves multiple interests,” including, first, focusing the hearing process on real disputes susceptible of resolution in an adjudication (for example, a petitioner may not demand an adjudicatory hearing to attack generic NRC requirements or regulations, or to express generalized grievances about NRC policies); second, by requiring detailed pleadings, putting other parties in the proceeding on notice of the Petitioners’ specific grievances and thereby giving them a good idea of the claims they will be either supporting or opposing; and, third, helping to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions.

RULES OF PRACTICE: CONTENTIONS

Although the February 2004 revision of NRC procedural rules no longer incorporates provisions formerly found in 10 C.F.R. § 2.714(a)(3), (b)(1) (2003), which permitted the amendment and supplementation of petitions and filing of contentions after the original filing of petitions, they contain essentially the same substantive admissibility standards for contentions.

RULES OF PRACTICE: CONTENTIONS

Sections 2.309(f)(1)(i) and (ii) require that a petitioner must, for each contention, “[p]rovide a specific statement of the issue of law or fact to be raised or controverted,” and “[p]rovide a brief explanation of the basis for the contention.” An “admissible contention must explain, with specificity, particular safety or legal reasons requiring rejection of the contested [application],” and demonstrate “that there has been sufficient foundation assigned for it to warrant further exploration.” The contention rules “bar contentions where petitioners have only ‘what amounts to generalized suspicions, hoping to substantiate them later.’”

RULES OF PRACTICE: CONTENTIONS

Petitioners must, under section 2.309(f)(1)(iii), “[d]emonstrate that the issue raised in the contention is within the scope of the proceeding.” A contention must allege facts “sufficient to establish that it falls directly within the scope” of a proceeding. Contentions are necessarily limited to issues that are germane to the application pending before the Board, and are not cognizable unless they are material to matters that fall within the scope of the proceeding for which the

licensing board has been delegated jurisdiction as set forth in the Commission's notice of opportunity for hearing.

RULES OF PRACTICE: CONTENTIONS

Under section 2.309(f)(1)(iv), a petitioner must “[d]emonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding”; a material issue has been defined by the Commission as one in which “resolution of the dispute would make a difference in the outcome of the licensing proceeding.”

RULES OF PRACTICE: CONTENTIONS

Section 2.309(f)(1)(v), which requires that a petitioner “[p]rovide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue,” does “not call upon the intervenor to make its case at [the contention] stage of the proceeding, but rather to indicate what facts or expert opinions, be it one fact or opinion or many, of which it is aware at that point in time which provide the basis for its contention.” The requirement “generally is fulfilled when the sponsor of an otherwise acceptable contention provides a brief recitation of the factors underlying the contention or references to documents and texts that provide such reasons.” But contentions will be screened out when Petitioners “have no particular expertise — or expert assistance — and no particularized grievance, but are hoping something will turn up later as a result of NRC Staff work.”

RULES OF PRACTICE: CONTENTIONS

Section 2.309(f)(1)(v) requires a petitioner to “provide the analyses and expert opinion showing why its bases support its contention,” and to “provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention.”

RULES OF PRACTICE: CONTENTIONS

A licensing board “may not make factual inferences on [a] petitioner's behalf.” However, a board should also bear in mind the “general admonition that technical

perfection is not an essential element of contention pleading.’’ The ‘‘[s]ounder practice is to decide issues on their merits, not to avoid them on technicalities.’’

RULES OF PRACTICE: CONTENTIONS

Section 2.309(f)(1)(vi) requires that a petitioner, for each contention, ‘‘[p]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant’s environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner’s belief.’’ Under this requirement, a petitioner must ‘‘read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant’s position and the petitioner’s opposing view,’’ and explain why it disagrees with the applicant.

RULES OF PRACTICE: CONTENTIONS

Under section 2.309(f)(1)(vi), if a petitioner does not believe the application addresses a relevant issue, the petitioner is to ‘‘explain why the application is deficient.’’ A contention that does not directly controvert a position taken by the applicant in the application is subject to dismissal. An allegation that some aspect of a license application is ‘‘inadequate’’ or ‘‘unacceptable’’ does not give rise to a genuine dispute unless it is supported by facts and a reasoned statement of why the application is unacceptable in some material respect.

RULES OF PRACTICE: CONTENTIONS

Under section 2.309(f)(1)(vi), a petitioner ‘‘does not become entitled to an evidentiary hearing merely on request, or on a bald or conclusory allegation that . . . a dispute exists. The [petitioner] must make a minimal showing that material facts are in dispute, thereby demonstrating that an ‘inquiry in depth’ is appropriate.’’ However, notwithstanding the burden the contention admissibility rules impose on petitioners to put forth a sufficient factual basis, this ‘‘does not shift the ultimate burden of proof from the applicant to the petitioner.’’ Nor do the contention admissibility rules require a petitioner to ‘‘prove its case at the contention stage. For factual disputes, a petitioner need not proffer facts in ‘formal affidavit or evidentiary form,’ sufficient ‘to withstand a summary disposition motion.’ . . . On the other hand, a petitioner ‘must present sufficient

information to show a genuine dispute' and reasonably 'indicating that a further inquiry is appropriate.' ”

LICENSE RENEWAL: SCOPE

The regulatory authority relating to license renewal is found in 10 C.F.R. Parts 51 and 54. Part 54 concerns the “Requirements for Renewal of Operating Licenses for Nuclear Power Plants,” and addresses safety-related issues in license renewal proceedings. Part 51, concerning “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions,” addresses the environmental aspects of license renewal.

LICENSE RENEWAL: SCOPE

The NRC license renewal safety review is focused “upon those potential detrimental effects of aging that are not routinely addressed by ongoing regulatory oversight programs,” which the Commission considers “the most significant overall safety concern posed by extended reactor operation.”

LICENSE RENEWAL: SCOPE

The Commission has framed the focus of license renewal review as being on “plant systems, structures, and components for which current [regulatory] activities and requirements may not be sufficient to manage the effects of aging in the period of extended operation.” An issue can be related to plant aging and still not warrant review at the time of a license renewal application, if an aging-related issue is “adequately dealt with by regulatory processes” on an ongoing basis. For example, if a structure or component is already required to be replaced “at mandated, specified time periods,” it would fall outside the scope of license renewal review.

LICENSE RENEWAL: SCOPE

Issues identified as “Category 1,” or “generic,” issues in Appendix B to Subpart A of Part 51 are not within the scope of a license renewal proceeding. On these issues the Commission found that it could draw “generic conclusions applicable to all existing nuclear power plants, or to a specific subgroup of plants,” based on its conclusion that these issues involve “environmental effects that are essentially similar for all plants,” and that they thus “need not be assessed repeatedly on a site-specific basis, plant-by-plant.” Accordingly, under Part 51, license renewal applicants may in their site-specific ERs refer to and adopt the

generic environmental impact findings found in Table B-1, Appendix B for all Category 1 issues.

LICENSE RENEWAL: SCOPE

Issues identified as “Category 2,” or “plant specific,” issues in Appendix B to Subpart A are within the scope of license renewal; the Commission was not able to make generic environmental findings on these issues, and therefore applicants must provide a plant-specific review of all these Category 2 environmental issues. These issues are characterized by the Commission as involving environmental impact severity levels that “might differ significantly from one plant to another,” or impacts for which additional plant-specific mitigation measures should be considered.

LICENSE RENEWAL: SCOPE

As required under 10 C.F.R. § 51.95(c), the Commission in 1996 adopted a “Generic Environmental Impact Statement for License Renewal of Nuclear Plants” (GEIS), published as NUREG-1437, which provides data supporting the table of Category 1 and 2 issues in Appendix B. Issuance of the 1996 GEIS was part of an amendment of the requirements of Part 51 undertaken by the Commission to establish environmental review requirements for license renewals “that were both efficient and more effectively focused.”

LICENSE RENEWAL: SCOPE

Section 51.103 defines the requirements for the “record of decision” relating to any license renewal application, including the standard that the Commission, in making such a decision pursuant to Part 54, “shall determine whether or not the adverse environmental impacts of license renewal are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.”

RULES OF PRACTICE: CONTENTIONS; LICENSE RENEWAL

Embrittlement of the reactor pressure vessel is a very serious topic, within the scope of license renewal.

RULES OF PRACTICE: CONTENTIONS; LICENSE RENEWAL

It is reasonable to require enough specificity in the explanation offered in the

basis for a contention such that a matter relating to a particular facility is stated in sufficient detail that it clearly states an issue that is susceptible to litigation with regard to that facility. Petitioners failed to achieve this in their contention on embrittlement.

RULES OF PRACTICE: CONTENTIONS; LICENSE RENEWAL

Petitioners provided no expert support for any allegation specific to the plant at issue (even viewing the contention as being “merely inartfully drafted”), referred to no documents or other sources on which they planned to rely at any hearing, and did not provide enough to warrant “further inquiry.” Nor were any sections or specific contents of the application referenced to identify any specific inadequacy, and the asserted “failure to address” embrittlement was not explained with any specificity or tied in any way to the actual application.

RULES OF PRACTICE: CONTENTIONS

The Board recognizes that the new rule’s omission of comparable provisions for amendment of petitions as of right, as permitted under prior rules, might in certain circumstances place some petitioners in a difficult position, particularly those pressed for opportunity and time to research and develop relevant technical and legal issues and arguments, or lacking easy access to experts or counsel competent in NRC practice, to assist them in timely drafting contentions meeting the strict contention admissibility requirements. But no request for extension to address any such concerns was made in this proceeding.

RULES OF PRACTICE: CONTENTIONS; LICENSE RENEWAL

Contentions regarding alleged radiological and nonradiological contamination of drinking water were found to be outside the scope of license renewal because they involved no aging-related issues and because “radiation exposures to the public (license renewal term),” as well as the discharge of chlorine or other biocides, sanitary waste and minor chemical spills, and certain metals in wastewater, are identified as a Category 1, or generic, issues under 10 C.F.R. Part 51, Appendix B.

RULES OF PRACTICE: CONTENTIONS; LICENSE RENEWAL

A contention regarding storage of spent fuel was ruled inadmissible because it was outside the relatively narrow scope of a license renewal proceeding as defined by the Commission in its rules and relevant case law.

RULES OF PRACTICE: CONTENTIONS; LICENSE RENEWAL

Under Commission authority, a contention raising environmental justice issues was found to be inadmissible because no sufficiently specific disproportionate effects with a ‘nexus to the physical environment,’ falling on low-income and minority communities, were alleged or shown; although some serious issues were raised, these were found to be outside the jurisdiction of the licensing board.

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MEMORANDUM AND ORDER
(Ruling on Standing, Contentions, and Other Pending Matters)

I. INTRODUCTION

This proceeding involves the application of Nuclear Management Company, LLC (NMC), to renew the operating license for its Palisades Nuclear Plant for an additional 20-year period commencing in 2011. A number of groups and individuals have jointly filed a petition in which they submit contentions challenging various safety and environmental aspects of the proposed license renewal. In this Memorandum and Order we address all matters still pending in this proceeding, including Petitioners' standing to participate in the proceeding, the admissibility of their contentions, and certain other matters, the most recent being a motion filed by Petitioners on January 27, 2006.

We confirm herein a ruling addressed verbally in oral argument on November 3, 2006. We also deny Petitioners' recent motion and find certain objections of Petitioners to an order issued in December 2005 to be without merit, for reasons we explain herein. Finally, we find that Petitioners have established standing to participate in the proceeding, but that, despite having in some instances touched upon some serious topics, they have not submitted any admissible contentions under applicable NRC regulations and precedent. Therefore, although the NRC Staff will continue to review administratively the adequacy of the license renewal application, this Licensing Board must under relevant law terminate this adjudicatory proceeding.

II. BACKGROUND

NMC filed its application for renewal of the Palisades operating license on March 22, 2005, and subsequently filed a supplement to the application on May 5, 2005.¹ In response to a *Federal Register* notice of opportunity for hearing on the proposed license renewal,² on August 8, 2005, Petitioners Nuclear Information and Resource Service (NIRS), West Michigan Environmental Action Council (WMEAC), Don't Waste Michigan (DWM), the Green Party of Van Buren County (Green Party), the Michigan Land Trustees (MLT), and a number of individuals belonging to these organizations (Member-Intervenors), together filed a Request for Hearing and Petition To Intervene that included twelve contentions.³ On

¹ See 70 Fed. Reg. 33,533 (June 8, 2005).

² *Id.*

³ Request for Hearing and Petition To Intervene (Aug. 8, 2005) [hereinafter Petition].

August 25, this Licensing Board was established to preside over this proceeding, and has since issued several unpublished orders addressing various matters that have arisen in the proceeding.⁴

NMC and the Nuclear Regulatory Commission (NRC) Staff filed answers to the Petition on September 2, 2005,⁵ and on September 16, Petitioners filed a Combined Reply, in which, among other things, they withdrew Contentions 5, 6, 9, 10, 11, and one of two contentions originally numbered as 8.⁶ In addition, Contention 4 was not addressed in the Reply, nor was it covered in oral argument, and we find that it also was effectively withdrawn. On September 26, 2005, NMC and the NRC Staff filed motions to strike the Petitioners' Reply,⁷ to which Petitioners filed a response on October 6, 2005.⁸

Oral argument on all pending matters was heard November 3-4, 2005.⁹ At the beginning of oral argument the Licensing Board notified the parties of how it intended to handle the matters raised in the NMC and Staff motions to strike and provided the parties with an opportunity to make verbal arguments on the

⁴ See Order (Regarding Schedule and Guidance for Proceedings) (Aug. 31, 2005) (unpublished); Order (Regarding Requests To Reschedule) (Sept. 6, 2005) (unpublished) [hereinafter 9/6/05 Order]; Order (Regarding Telephone Conference and Oral Argument on Contentions) (Sept. 7, 2005) (unpublished); Order (Regarding Matters Addressed at September 12 Telephone Conference) (Sept. 14, 2005) (unpublished); Order (Regarding Oral Argument and Limited Appearance Statements in South Haven, Michigan) (Oct. 13, 2005) (unpublished); Memorandum (Notice of Need for More Time) (Nov. 14, 2005) (unpublished); Order and Revised Notice (Setting Deadlines to Respond to Staff Notification of December 20, 2005) (Dec. 21, 2005) (unpublished) [hereinafter 12/21/05 Order and Revised Notice]; Order and Notice (Regarding Petitioners' Motion of January 27, 2006, and Expected Rulings on Motion, Standing, Contentions, and Other Pending Matters) (Jan. 30, 2006) [hereinafter 1/30/06 Order]; Notice (Regarding Expected Rulings on Standing, Contentions, and Other Pending Matters) (Feb. 27, 2006). Access to these and other documents making up the record of this proceeding may be found in the Electronic Hearing Docket, under the Electronic Reading Room tab on the NRC Public Web site, at <http://www.nrc.gov>.

⁵ [NMC]'s Answer to the August 8, 2005 Request for Hearing and Petition To Intervene (Sept. 2, 2005) [hereinafter NMC Answer]; NRC Staff Answer Opposing Petition To Intervene and Request for Hearing (Sept. 2, 2005) [hereinafter Staff Answer].

⁶ Petitioners' Combined Reply to NRC Staff and [NMC] Answers (Sept. 16, 2005) at 53 [hereinafter Petitioners' Reply].

⁷ [NMC]'s Motion To Strike Petitioners' September 16, 2005 Combined Reply to NRC Staff and [NMC] Answers (Sept. 26, 2005) [hereinafter NMC Motion]; NRC Staff Motion To Strike Petitioners' Combined Reply to NRC Staff and [NMC] Answers to Petition To Intervene and Request for Hearing (Sept. 26, 2005) [hereinafter Staff Motion].

⁸ Petitioners' Combined Response in Opposition to NRC Staff and [NMC] Motions To Strike (Oct. 6, 2005) [hereinafter Combined Response].

⁹ The Board also heard limited appearance statements from members of the community on the evening of November 3, 2005, pursuant to 10 C.F.R. § 2.315.

motions at that time.¹⁰ The Board's ruling on these motions is stated below in Section IV.A.

After oral argument on the admissibility of all remaining contentions in the proceeding, there occurred three developments that have affected the timing of the issuance of this Memorandum and Order. First, on November 8, 2005, NRC Staff Counsel filed a letter with the Board, stating that the Staff was no longer asserting one quite significant argument relating to Petitioners' Contention 1.¹¹

Second, on December 20, 2005, Staff Counsel notified the Licensing Board and parties, by e-mail transmission, that she had received a telephone call from Demetrios Basdekas, who had been named as an expert witness by the Petitioners in support of proposed Contention 1.¹² According to Counsel, Mr. Basdekas among other things stated that he had been in contact with Petitioners but had subsequently declined to be their expert in this proceeding.¹³ Thereafter, the Board set deadlines of January 3 and 9, 2006, respectively, for Petitioners to respond to the information provided by Staff Counsel, and for Staff and the Applicant to reply to the Petitioners' response; these were timely filed by all parties.¹⁴

Third, on the afternoon of January 27, 2006, Petitioners through their Counsel filed a motion to strike the NMC and Staff January 9 replies, stay the proceeding, and take the deposition of Staff Counsel, to which responses were filed by NMC and the NRC Staff on February 3, 2006, in accordance with a deadline set by the Board.¹⁵ We address this motion as well as the objections of Petitioners, stated in their response to our December 21, 2005, Order, below in Section IV.B.

¹⁰ See Tr. at 23-33.

¹¹ Letter from Susan L. Uttal, Counsel for the NRC Staff, to Licensing Board (Nov. 8, 2005) [hereinafter Uttal 11/8/05 Letter].

¹² E-mail from Susan L. Uttal, Counsel for the NRC Staff, to Board Members, Parties, and NRC Office of the Secretary (Dec. 20, 2005, 1:42 p.m. EST) (copy on file with Licensing Board) [hereinafter Uttal 12/20/05 E-mail].

¹³ *Id.*

¹⁴ 12/21/05 Order and Revised Notice; Petitioners' Response to Board Order on Matter of Expert Opinion (Jan. 3, 2006) [hereinafter Petitioners' Response]; [NMC]'s Reply to Petitioners' Response to Board December 21, 2005 Order Regarding Expert Opinion Allegedly Supporting Contention 1 — Palisades Reactor Embrittlement (Jan. 9, 2006) [hereinafter NMC Reply]; NRC Staff Reply to Petitioners' Response to Board Order (Jan. 9, 2006) [hereinafter Staff Reply].

¹⁵ Petitioners' Motion To Strike Staff and NMC Responses to Board Order on Expert Witness Matter, To Stay Proceedings, and To Take Deposition of NRC Staff Counsel (Jan. 27, 2006) [hereinafter Petitioners' Motion]; 1/30/06 Order; [NMC]'s Answer to Petitioners' Motion To Strike, Stay Proceeding and Take Deposition (Feb. 3, 2006) [hereinafter NMC Response to Motion]; NRC Staff Answer to Petitioners' Motion To Strike Staff and NMC Responses to Board Order, To Stay Proceedings and To Take Deposition of NRC Staff Counsel (Feb. 3, 2006) [hereinafter Staff Response to Motion].

III. BOARD RULING ON STANDING OF PETITIONERS TO PARTICIPATE IN PROCEEDING

A petitioner's standing, or right to participate in a Commission licensing proceeding, is grounded in section 189a of the Atomic Energy Act (AEA), which requires the NRC to provide a hearing "upon the request of any person whose interest may be affected by the proceeding."¹⁶ The Commission has implemented this requirement in its regulations as 10 C.F.R. § 2.309.¹⁷

When determining whether a petitioner has established the necessary "interest" under Commission rules, licensing boards are directed by Commission precedent to look for guidance to judicial concepts of standing.¹⁸ According to these concepts, to qualify for standing a petitioner must allege (1) a concrete and particularized injury that is (2) fairly traceable to the challenged action and (3) likely to be redressed by a favorable decision.¹⁹ These three criteria are commonly referred to, respectively, as "injury in fact," causality, and redressability.²⁰ The requisite injury may be either actual or threatened,²¹ but must arguably lie within the "zone of interests" protected by the statutes governing the proceeding — here, either the AEA or the National Environmental Policy Act (NEPA).²²

NMC does not challenge any of the Petitioners' standing in this matter.²³ The NRC Staff does not contest the standing of the individual Petitioners based upon their living within 50 miles of the Palisades plant, which meets the long-standing "proximity presumption" principle in NRC adjudicatory proceedings.

¹⁶ 42 U.S.C. § 2239(a)(1)(A) (2000).

¹⁷ Subsection (d)(1) of section 2.309 provides in relevant part that the Board shall consider the following three factors when deciding whether to grant standing to a petitioner: the nature of the petitioner's right under the AEA to be made a party to the proceeding; the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and the possible effect of any order that may be entered in the proceeding on the petitioner's interest. 10 C.F.R. § 2.309(d)(1)(ii)-(iv). The provisions of 10 C.F.R. § 2.309 were formerly found as 10 C.F.R. § 2.714, prior to a major revision of the Commission's procedural rules for adjudications in 2004.

¹⁸ See, e.g., *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998); *Quivira Mining Co.* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 5-6 (1998); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995).

¹⁹ See *Yankee*, CLI-98-21, 48 NRC at 195 (citing *Steel Co. v. Citizens for a Better Environment*, 523 U.S. 83, 102-04 (1998); *Kelley v. Selin*, 42 F.3d 1501, 1508 (6th Cir. 1995)).

²⁰ *Id.*

²¹ *Id.* (citing *Wilderness Society v. Griles*, 824 F.2d 4, 11 (D.C. Cir. 1987)).

²² See *Yankee*, CLI-98-21, 48 NRC at 195-96 (citing *Ambrosia Lake Facility*, CLI-98-11, 48 NRC at 6).

²³ NMC Answer at 2.

In addition, the Staff agrees that the organizational Petitioners have established “representational standing” to participate in the proceeding.²⁴

We agree, based on their physical proximity to the Palisades plant, that the individual Petitioners have demonstrated standing to participate in this proceeding. We also agree, based upon affected members authorizing the Petitioner organizations to represent them in this proceeding, that the organizational Petitioners have also demonstrated standing to participate under AEA section 189a and the Commission’s rules.²⁵

IV. BOARD ANALYSIS AND RULINGS ON MOTIONS AND PENDING MATTERS

A. NMC and NRC Staff Motions To Strike Petitioners’ Reply

The September 2005 motions to strike filed by NMC and the NRC Staff raise the same issue and arguments — that is, that Petitioners in their Reply improperly raise new matters and/or expand arguments to an extent not included in their original filing and provide new documents not previously provided. Citing the Commission’s Final Rule on the 2004 Changes to the Adjudicatory Process, and related case law, NMC and the Staff argue that Petitioners’ Reply goes beyond the Commission-defined standard that “[a]ny reply should be narrowly focused on the legal or logical arguments presented in the applicant/licensee or the NRC staff answer.”²⁶ In response to NMC and the Staff, Petitioners argue that their Reply contains “legitimate amplification” of their original contentions and “flesh[es] out” the contentions and should thus be considered to that extent.²⁷ Petitioners also note the lack of any claim of prejudice or injury to NMC or the Staff, cite

²⁴ Staff Answer at 2-9 (citing, *inter alia*, *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 148-49, *aff’d on other grounds*, CLI-01-17, 54 NRC 3 (2001); *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 646 (1979); *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 390-94 (1979); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-98-12, 47 NRC 343, 354, *aff’d in part and rev’d in part*, CLI-98-21, 48 NRC 185 (1998)).

²⁵ See *Yankee*, CLI-98-21, 48 NRC at 195; *Georgia Tech*, CLI-95-2, 42 NRC at 115; *Turkey Point*, LBP-01-6, 53 NRC at 146-50.

²⁶ See Staff Motion at 2 (quoting Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182, 2203 (Jan. 14, 2004)); see also *id.* at 2-4 (citing *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004); *LES*, CLI-04-35, 60 NRC 619, 623 (2004)); NMC Motion at 3-7. NMC in its motion also makes specific arguments regarding each remaining contention, NMC Motion at 7-9, and the NRC Staff also refers to various additional case law regarding the contention admissibility standards. Staff Motion at 5-6.

²⁷ Combined Response at 2, 3.

case law for the principle that “[t]echnical perfection is not an essential element of contention pleading,”²⁸ make various arguments that the original contentions and their treatment in the Reply are congruent,²⁹ and urge us to give them the benefit of the doubt in the case of “inarticulate draftsmanship.”³⁰

The Commission in the *LES* case upheld a Licensing Board determination that, although it would take into account any information from reply briefs that “legitimately amplified” issues presented in original petitions in that case, it would not consider instances of what “essentially constituted untimely attempts to amend their original petitions.”³¹ Because the reply briefs in *LES* had not been accompanied by any attempt to address the late-filing factors in section 2.309(c), (f)(2), they were not considered in determining the admissibility of the contentions.³²

At the beginning of oral argument, this Board informed the participants that, while it would not “strike from the record” any portions of the Petitioners’ Reply, it would also not, in ruling on the admissibility of contentions, consider anything in the Reply that does not focus on the matters raised in the answers.³³ Thus, in making the following rulings, although anything that might constitute “legitimate amplification” or properly late-filed³⁴ material may be considered, the Board has not considered any material that would fall outside that permitted by the Commission in the authorities cited above. To the extent any part of the Reply has been considered, we so state in our discussion of the various contentions.

²⁸ *Id.* at 4 (citing *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-3, 53 NRC 84, 99 (2001)).

²⁹ *Id.* at 4-9.

³⁰ *Id.* at 9.

³¹ *LES*, CLI-04-25, 60 NRC at 224; *see LES*, CLI-04-35, 60 NRC at 625. We note that the Commission in both *LES* rulings pointed out that a petitioner may in instances of exigent or unavoidable circumstances file a request for an extension of time to file an original hearing petition and contentions, an action which, as in this proceeding, was not done in *LES*. *LES*, CLI-04-25, 60 NRC at 225; *LES*, CLI-04-35, 60 NRC at 623 (citing 69 Fed. Reg. at 2200).

³² *See LES*, CLI-04-25, 60 NRC at 224 (citing *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-04-14, 60 NRC 40, 58 (2004)). We note the Commission’s later remand to the Licensing Board of a request to consider several previously rejected contentions under the late-filing criteria of 10 C.F.R. § 2.309(c), (f)(2), despite the fact that the Petitioner therein had addressed the late-filing criteria for the first time only in its interlocutory appeal to the Commission. *LES*, CLI-04-35, 60 NRC at 625. For this reason, in an abundance of caution and in order to give Petitioners every benefit of the doubt, we have also considered in making our rulings herein whether any of the late-filed support for those of Petitioners’ contentions that would, if properly supported, be within the scope of license renewal proceedings, might be admissible under the late-filing criteria of 10 C.F.R. § 2.309(c), (f)(2).

³³ Tr. at 24-33.

³⁴ *See* 10 C.F.R. § 2.309(c), (f)(2).

B. Petitioners' Objections to December 21, 2005, Board Order and Motion on Expert Witness Matters

On December 20, 2005, the Board received Staff Counsel's notification regarding a telephone call received from Demetrios Basdekas, named by Petitioners as their expert witness in support of proposed Contention 1.³⁵ According to Staff Counsel, Mr. Basdekas stated that he had been in contact with Petitioners but subsequently declined to be their expert, and that he had had no site-specific information on the Palisades reactor and expressed no opinion on it.³⁶

1. Petitioners' Response and Objections to December 21, 2005, Board Order

In response to our Order setting deadlines to respond to this notification, Petitioners through their Counsel begin by objecting to our Order, stating among other things that it "requires disclosures of matters that are covered by the attorney work-product privilege and attorney-client privilege"; that "the current status of their retention of expert assistance is immaterial, if not irrelevant, to the current posture of this proceeding"; and that they are "confused by the requirement that they respond to this Order."³⁷ Petitioners then go on to respond to the Order, indicating that Mr. Basdekas "consulted extensively with Petitioners in the weeks leading up to the filing" of their Petition, "actually co-wrote and edited the embrittlement contention,"³⁸ was their expert at the time of the preparation and submission of the petition,³⁹ and did "take Palisades-specific information into account."⁴⁰

Petitioners also, however, state that the arrangement they had with Mr. Basdekas was only "tentative," involving "assist[ance] in the preparation of

³⁵ Uttal 12/20/05 E-mail.

³⁶ *Id.* In the e-mail, Staff Counsel writes that Mr. Basdekas stated to Staff Counsel that "although he was contacted by the petitioners regarding being their expert witness and had told them that he might be willing to help them after looking into the matter, he subsequently declined to serve as an expert witness in this matter," and had advised the Petitioners "that he was declining to be their expert"; and that he further stated that he had "informed the petitioners that, as a generic matter, the longer a reactor operates, the more embrittled the vessel becomes," but that he had "made no statements regarding the state of the Palisades reactor as he had no site specific information on which to base an opinion." *Id.* The address list for this e-mail included the Licensing Board, Counsel for all parties, and the Office of the Secretary of the Commission (through which it was effectively filed for inclusion in the record of this proceeding).

³⁷ Petitioners' Response at 1.

³⁸ *Id.* at 2.

³⁹ *Id.* at 3 (citing 10 C.F.R. § 2.309(f)(2)).

⁴⁰ *Id.* at 12; *see id.* at 4-11.

Contention 1” and uncertainty as to his role “for the duration of the . . . proceeding,” and that he had indicated on August 22, 2005 (2 weeks after Petitioners filed their Request for Hearing and Petition To Intervene in this matter), “that he could not serve further as Petitioners’ expert on embrittlement for personal reasons.”⁴¹

Petitioners include extensive quotes of statements attributed to Mr. Basdekas, stating that they “have every intention, should that contention be admitted for hearing, of producing other testimony from one or more other experts, buttressed by the extensive legacy of analysis and thoughtful criticism which Mr. Basdekas produced as an engineer for the [NRC] for some 20 years.”⁴² They state that they have “actively sought to replace him,” contacting several potential experts; and that they are presently “negotiating with an expert to join their intervention team, and are confident they will be prepared to go to trial once the ASLB admits their contention for hearing.”⁴³

2. NMC and NRC Staff Replies to Petitioners’ Response and Objections

NMC replies by citing case law for the principle that parties to NRC proceedings have a “duty to apprise the Board of significant developments affecting the proceeding,”⁴⁴ and calling the opinion of Mr. Basdekas “the only purported support for the Petitioners’ original contention.”⁴⁵ The Staff in its Reply argues that Mr. Basdekas provided only “generic” information in support of Contention 1,⁴⁶ also notes portions of the oral argument in which reference is made by the Board to Mr. Basdekas being Petitioners’ expert,⁴⁷ and asserts that Petitioners in their Response provide “nothing to rebut the information” provided in our order (citing Staff Counsel’s e-mail of December 20, 2005).⁴⁸ Based on this last argument, Staff urges that “[t]herefore, it is also clear that any statement specific to Palisades that is found in the embrittlement contention is not the expert opinion of Mr. Basdekas, and no other authority is cited as support for any statement in the contention.”⁴⁹

Both NMC and the Staff argue that the new information about prior statements

⁴¹ *Id.* at 3.

⁴² *Id.*

⁴³ *Id.* at 12.

⁴⁴ NMC Reply at 2 (citing *Tennessee Valley Authority* (Browns Ferry Nuclear Plant, Units 1, 2, and 3), ALAB-677, 15 NRC 1387, 1394 (1982)).

⁴⁵ *Id.* at 2 (citing Tr. at 48).

⁴⁶ Staff Reply at 1.

⁴⁷ *Id.* at 3-4 (citing Tr. at 47, 48).

⁴⁸ *Id.* at 5.

⁴⁹ *Id.*

of Mr. Basdekas comes too late, and should have been provided with the original contention in order for them to be considered in ruling on the admissibility of Contention 1.⁵⁰

3. *Petitioners' January 27, 2006, Motion To Strike Staff and NMC Replies, Stay Proceedings, and Depose Staff Counsel*

Petitioners move in their January 27 filing that we strike from the record Staff Counsel's December 20, 2005, e-mail, as well as the NMC and Staff January 9, 2006, Replies to the Petitioners' January 3, 2006, Response to the Board's December 21, 2005, Order.⁵¹ Additionally and alternatively, Petitioners move the Board to stay this proceeding in order to allow them to depose NRC Staff Counsel and "allow Petitioners to reply more fully to the facts and arguments raised in those pleadings," apparently referring to the January 9, 2006, Replies.⁵²

4. *NMC and NRC Staff Responses to Petitioners' Motion To Strike, Stay Proceedings, and Depose Staff Counsel*

In addition to recounting certain arguments previously made in its January 9, 2006, Reply to Petitioners' January 3, 2006, Response to our December 21, 2005, Order, NMC asserts that Petitioners' Motion is baseless and should be denied.⁵³ The NRC Staff likewise argues that Petitioners' allegations are "baseless . . . , supported neither in fact nor in law."⁵⁴ The Staff opposes the relief requested by Petitioners and urges us not to consider the merits of the motion as it is "devoid of good cause for its untimeliness."⁵⁵ Noting that Petitioners failed at any time prior to Mr. Basdekas' telephone call to Staff Counsel to apprise the Board and parties that he had declined to serve as their expert, the Staff argues Staff Counsel was performing her duty when she notified the Board and parties of Mr. Basdekas' call, and that Petitioners' counsel should have provided the information regarding Mr. Basdekas even earlier.⁵⁶ NMC and the Staff also assert that there was no requirement that Staff Counsel provide the information in question in a motion, as no relief was sought.⁵⁷

⁵⁰ *Id.* at 6-7; NMC Reply at 3-4.

⁵¹ Petitioners' Motion at 1.

⁵² *Id.*

⁵³ NMC Response to Motion at 1-3.

⁵⁴ Staff Response to Motion at 4.

⁵⁵ *Id.* at 1.

⁵⁶ *Id.* at 2-3, 9.

⁵⁷ *See id.* at 9; NMC Response to Motion at 2.

5. Board Analysis and Rulings on Petitioners' Objections to December 21, 2005, Board Order, and Petitioners' Motion To Strike, Stay Proceedings, and Depose Staff Counsel

Staff is correct that refraining from ruling on the merits of Petitioners' motion and denying it based on its untimeliness would be appropriate, particularly as no request to consider it despite its lateness was ever made.⁵⁸ We find, however, in light of some statements made by the Petitioners in these filings, that they should be addressed. We begin our analysis by looking to some fundamental standards of conduct and ethics.

a. Standards of Conduct

We note first that all counsel have a continuing duty to update a tribunal "of any development which may conceivably affect the outcome" of litigation.⁵⁹ As noted by NMC and the Staff, NRC precedent also requires parties to NRC proceedings to alert adjudicatory bodies to information relevant to matters being adjudicated.⁶⁰ In addition, counsel have both an obligation to assure that representations made in all pleadings "to the best of [their] knowledge, information and belief . . . are true,"⁶¹ and an ethical responsibility *not* to knowingly "make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer."⁶²

b. Discussion and Rulings

We now examine the occurrences relating to the expert put forth in support of Petitioners' Contention 1, beginning with Staff Counsel's e-mail of December 20, 2005. It is clear to us that Staff Counsel had a duty to inform the Board of the telephone call from Mr. Basdekas, if for no other reason than that she knew that this information was "conceivably" relevant to a ruling on Contention 1, in the eyes of at least one member of the Board.⁶³ Nor did the imparting of the information regarding the call she received from Mr. Basdekas violate any ethical

⁵⁸ Section 2.323(a) 10 C.F.R. requires that a motion "must be made no later than ten (10) days after the occurrence or circumstance from which the motion arises."

⁵⁹ *Board of License Commissioners v. Pastore*, 469 U.S. 238, 240 ((1985); *United States v. Shaffer Equipment Co.*, 11 F.3d 450, 457-59 (4th Cir. 1993).

⁶⁰ NMC Response to Motion at 1; Staff Response to Motion at 9 & n.25; NMC Reply at 2 (citing *Browns Ferry*, ALAB-677, 15 NRC at 1394).

⁶¹ 10 C.F.R. § 2.304(c); *see also* Fed. R. Civ. P. 11.

⁶² Model Rules of Prof'l Conduct R. 3.3 (2003); *see also* Model Code of Prof'l Responsibility DR 7-102(A)(5) (1980); Ohio Disciplinary Code of Prof'l Responsibility DR 7-102(A)(5) (2003).

⁶³ *See, e.g.*, Staff Reply to Motion at 3.

prohibitions. He was not represented by Petitioners' Counsel and, as argued by Staff Counsel, the call was initiated by Mr. Basdekas and no deception or coercion was in any way involved.⁶⁴ Finally, there is no requirement that the information provided by Staff Counsel be in the form of a motion; the information was placed in the record, all parties were appropriately apprised of it, and Counsel was seeking no action on the part of the Board. In light of the preceding, we will not strike Staff Counsel's December 20 e-mail. We also find nothing in either NMC's or the NRC Staff's Replies to Petitioners' Response to our December 21 Order to warrant striking them from any consideration in this proceeding.

We would note that not only Staff Counsel, but all counsel including Petitioners' Counsel, had, and have, a duty to disclose any information that might "conceivably" affect the outcome of this proceeding to the Board and other parties. As pointed out by NMC and the Staff, expert support for a contention raising a technical issue can clearly be relevant to its admissibility (and by extension to the outcome) not only of a ruling on the admission of a contention, but also, through such a ruling, of the proceeding itself, since the failure to proffer an admissible contention will result in denial of a hearing petition.⁶⁵ The questions of one board member in oral argument also demonstrate that it was conceivable that the actual availability of Mr. Basdekas to provide expert assistance to Petitioners at any hearing could have been relevant to the admissibility of Contention 1.⁶⁶

⁶⁴ Staff Response to Motion at 6 & n.16 (citing ABA Comm. on Ethics and Prof'l Responsibility, Formal Op. 93-378 (1993) (discussing the ethics consequences of *ex parte* contacts with expert witnesses for other parties)).

⁶⁵ See discussion *infra* Section V.A.

⁶⁶ We note the following example, noted by Staff and NMC Counsel, in which a Board member stated, "Now, you have identified an expert who is retired from the NRC, and presumably that expert would be able to say things other than just give us a lesson on the dangers of embrittlement," followed shortly thereafter by the following exchange:

Board member: "... if we were to admit this contention —"

Petitioners' Counsel: "Right."

Board member: "You have an expert, the expert can talk about what happened at the Palisades Plant."

Petitioners' Counsel: "Right."

Tr. at 47-48. Later, in questioning Staff Counsel, the same Board member stated:

[t]here's also case law that says the contention rule should not be used [as] a fortress to deny intervention[,] that what you need is enough to indicate that further inquiry is appropriate. . . . Basically something to indicate that the petitioners are qualified, able to litigate the issue that they raise. So what we have here is [—] we have an allegation that the application is incomplete for failure to address the continuing crisis of embrittlement[,] supported by this factual allegation about early embrittlement and the identification of an expert who used to work with the NRC. So on the face of that it would seem that that provides something to indicate that further inquiry might be appropriate. *Id.* at 149-50.

Nor do we find any grounds to order a stay or to permit Petitioners' Counsel to depose Staff Counsel. Depositions of opposing trial or litigation counsel are permitted only if "no other means exist to obtain the information," and the "information sought is relevant and non-privileged," and "crucial to the preparation of the case."⁶⁷ As the Staff points out, Mr. Basdekas is apparently in contact with Petitioners, and there is no apparent reason Petitioners cannot obtain any information about the communication with Staff Counsel from him rather than the Staff's litigation counsel. In addition, given that Mr. Basdekas is not involved in this proceeding at this point, we see no way in which any information that might be obtained about the communication between him and Staff Counsel would be even relevant, much less "crucial," to the matters at issue in this proceeding.

With respect to Petitioners' objections to our December 21, 2005, Order, we find no merit in them. The purpose of our Order was simply to require the filing of, and set deadlines for, responses to the information provided by Staff Counsel in the e-mail of December 20. Petitioners' argument through Counsel, to the effect that such a response would somehow run afoul of the attorney-client and work-product privileges, is without merit. Our Order required nothing that would constitute privileged information.⁶⁸

As for the impact of our rulings in this section of this Memorandum and Order on Contention 1, our analysis of and ruling on its admissibility are based on the contention and its basis as written in the original Petition, with the sole exception that we will interpret the words, "Petitioners' expert on embrittlement," to mean only that Mr. Basdekas assisted Petitioners in drafting Contention 1, not that he would be relied upon or available to assist them at any hearing. As to the previous statements of Mr. Basdekas that are provided in Petitioners' Response, we will treat these in the same manner described in section IV.A, *supra*, regarding the

⁶⁷ *Shelton v. American Motors Corp.*, 805 F.2d 1323, 1327 (8th Cir. 1986); *see also Nationwide Mutual Insurance Co. v. Home Insurance Co.*, 278 F.3d 621, 628-29 (6th Cir. 2002); *United States v. Philip Morris Inc.*, 209 F.R.D. 13, 17 (D.D.C. 2002).

⁶⁸ We note that Petitioners have not even attempted to establish how any matters at issue might be covered under any privilege, and it is "axiomatic that the burden is on a party claiming the protection of a privilege to establish those facts that are the essential elements of the privilege[.]" *Von Bulow v. Von Bulow*, 811 F.2d 136, 144 (2d Cir.) (citation omitted), *cert. denied*, 481 U.S. 1015 (1987); *see Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-82-82, 16 NRC 1144, 1153 (1982). In addition, it has been held, in response to claims of attorney-client and attorney work product privilege, that the identity of an expert retained by a party is discoverable. *MacGillivray v. Consolidated Rail Corp.*, No. 91-0774, 1992 WL 57915, at *2-3 (E.D. Pa., Mar. 17, 1992) (citing *ARCO Pipeline Co. v. S/S Trade Star*, 81 F.R.D. 416, 417 (E.D. Pa. 1978)); *see also Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1 and 2), LBP-83-27A, 17 NRC 971, 978-79 (1983). It would be absurd to find that the identity of a retained expert must be provided, but not whether an expert previously represented to have been retained is still, or is no longer, a party's expert.

additional factual information provided in Petitioners' Reply of September 16, 2005.⁶⁹

V. STANDARDS FOR ADMISSIBILITY OF CONTENTIONS

A. Regulatory Requirements and Commission Precedent on Contentions

To intervene in an NRC proceeding, a petitioner must, in addition to demonstrating standing, submit at least one contention meeting the requirements of 10 C.F.R. § 2.309(f)(1).⁷⁰ Failure of a contention to meet any of the requirements of section 2.309(f)(1) is grounds for its dismissal.⁷¹ Heightened standards for the admissibility of contentions originally came into being in 1989, when the Commission amended its rules to “raise the threshold for the admission of contentions.”⁷² The Commission has more recently stated that the “contention rule is strict by design,” having been “toughened . . . in 1989 because in prior years

⁶⁹ Even considering this information under the late-filing criteria of 10 C.F.R. § 2.309(c), (f)(2), it does not appear that this information was previously unavailable, that good cause exists for the failure to provide it earlier, or that other relevant criteria have been met by Petitioners.

⁷⁰ Section 2.309(f)(1) of 10 C.F.R. states that:

- (1) A request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised. For each contention, the request or petition must:
 - (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
 - (ii) Provide a brief explanation of the basis for the contention;
 - (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
 - (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
 - (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and
 - (vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to the specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

⁷¹ See *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999); *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991).

⁷² Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,168 (Aug. 11, 1989); see also *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999).

'licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation.'⁷³

The Commission has explained that the "strict contention rule serves multiple interests."⁷⁴ As stated by the Commission, these include the following (quoted in list form):

First, it focuses the hearing process on real disputes susceptible of resolution in an adjudication. For example, a petitioner may not demand an adjudicatory hearing to attack generic NRC requirements or regulations, or to express generalized grievances about NRC policies.

Second, the rule's requirement of detailed pleadings puts other parties in the proceeding on notice of the Petitioners' specific grievances and thus gives them a good idea of the claims they will be either supporting or opposing.

Finally, the rule helps to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions.⁷⁵

In February 2004 a new revision of the procedural rules came into effect. Although these rules no longer incorporate provisions formerly found in 10 C.F.R. § 2.714(a)(3), (b)(1) (2003), which permitted the amendment and supplementation of petitions and filing of contentions after the original filing of petitions,⁷⁶ they contain essentially the same substantive admissibility standards for contentions. In its Statement of Considerations adopting the new rules, the Commission reiterated the same principles that previously applied; namely, that "[t]he threshold standard is necessary to ensure that hearings cover only genuine and pertinent issues of concern and that the issues are framed and supported concisely enough at the outset to ensure that the proceedings are effective and focused on real, concrete issues."⁷⁷ Additional guidance with respect to the requirements now found in subsections (i) through (vi) of section 2.309(f)(1) is also found in NRC case law.

I. 10 C.F.R. § 2.309(f)(1)(i), (ii)

Sections 2.309(f)(1)(i) and (ii) require that a petitioner must, for each con-

⁷³ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001) (citing *Oconee*, CLI-99-11, 49 NRC at 334).

⁷⁴ *Oconee*, CLI-99-11, 49 NRC at 334.

⁷⁵ *Id.* (citations omitted).

⁷⁶ Under the current rules, contentions must be filed with the original petition, within 60 days of notice of the proceeding in the *Federal Register* (unless another period is specified). See 10 C.F.R. § 2.309(b)(3)(iii).

⁷⁷ 69 Fed. Reg. 2182, 2189-90 (Jan. 14, 2004).

tion, “[p]rovide a specific statement of the issue of law or fact to be raised or controverted,” and “[p]rovide a brief explanation of the basis for the contention.” The Commission has stated that an “admissible contention must explain, with specificity, particular safety or legal reasons requiring rejection of the contested [application].”⁷⁸ It has also been observed that a contention must demonstrate “that there has been sufficient foundation assigned for it to warrant further exploration.”⁷⁹ The contention rules “bar contentions where petitioners have only ‘what amounts to generalized suspicions, hoping to substantiate them later.’”⁸⁰

2. 10 C.F.R. § 2.309(f)(1)(iii)

Petitioners must also, as required by section 2.309(f)(1)(iii), “[d]emonstrate that the issue raised in the contention is within the scope of the proceeding.” A contention must allege facts “sufficient to establish that it falls directly within the scope” of a proceeding.⁸¹ Contentions are necessarily limited to issues that are germane to the application pending before the Board,⁸² and are not cognizable unless they are material to matters that fall within the scope of the proceeding for which the licensing board has been delegated jurisdiction as set forth in the Commission’s notice of opportunity for hearing.⁸³ A discussion of relevant regulatory and case law on the scope of license renewal proceedings is found in section V.B, *infra*.

3. 10 C.F.R. § 2.309(f)(1)(iv)

With regard to the requirement now stated in section 2.309(f)(1)(iv), that a petitioner must “[d]emonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding,” the Commission has defined a “material” issue as meaning one in which “resolution of the dispute would make a difference in the outcome of

⁷⁸ *Millstone*, CLI-01-24, 54 NRC at 359-60.

⁷⁹ See *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-942, 32 NRC 395, 428 (1990) (footnote omitted).

⁸⁰ *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 424 (2003) (citing *Oconee*, CLI-99-11, 49 NRC at 337-39).

⁸¹ *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-91-19, 33 NRC 397, 411-12 (1991), *appeal denied on other grounds*, CLI-91-12, 34 NRC 149 (1991).

⁸² See *Yankee*, CLI-98-21, 48 NRC at 204 & n.7.

⁸³ See *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170-71 (1976); see also *Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 426-27 (1980); *Commonwealth Edison Co.* (Carroll County Site), ALAB-601, 12 NRC 18, 24 (1980).

the licensing proceeding.’⁸⁴ The standards defining the “findings the NRC must make to support” a license renewal in this proceeding are set forth in 10 C.F.R. § 54.29.

4. 10 C.F.R. § 2.309(f)(1)(v)

Contentions must also, as now stated at section 2.309(f)(1)(v):

[p]rovide a concise statement of the alleged facts or expert opinions which support the requestor’s/petitioner’s position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue[.]

The Commission has explained that this requirement “does not call upon the intervenor to make its case at [the contention] stage of the proceeding, but rather to indicate what facts or expert opinions, be it one fact or opinion or many, of which it is aware at that point in time which provide the basis for its contention.”⁸⁵ The requirement “generally is fulfilled when the sponsor of an otherwise acceptable contention provides a brief recitation of the factors underlying the contention or references to documents and texts that provide such reasons.”⁸⁶ A contention is not to be admitted “where an intervenor has no facts to support its position and where the intervenor contemplates using discovery or cross-examination as a fishing expedition which might produce relevant supporting facts.”⁸⁷ As the Commission has explained:

It is surely legitimate for the Commission to screen out contentions of doubtful worth and to avoid starting down the path toward a hearing at the behest of Petitioners who themselves have no particular expertise — or expert assistance — and no particularized grievance, but are hoping something will turn up later as a result of NRC Staff work.⁸⁸

The requirements of section 2.309(f)(1)(v) have also been interpreted to require a petitioner “to provide the analyses and expert opinion showing why its bases

⁸⁴ 54 Fed. Reg. at 33,172.

⁸⁵ *Id.* at 33,170.

⁸⁶ *Id.* (citing *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 1), ALAB-868, 25 NRC 912, 930 (1987)).

⁸⁷ *Id.* at 33,171.

⁸⁸ *Oconee*, CLI-99-11, 49 NRC at 342.

support its contention,’’⁸⁹ and to ‘‘provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention.’’⁹⁰ Further, a licensing board ‘‘may not make factual inferences on [a] petitioner’s behalf.’’⁹¹ However, a board should also ‘‘[b]ear[] in mind the general admonition that technical perfection is not an essential element of contention pleading.’’⁹² It has been stated that the ‘‘[s]ounder practice is to decide issues on their merits, not to avoid them on technicalities.’’⁹³

5. 10 C.F.R. § 2.309(f)(1)(vi)

Finally, Petitioners must, as stated at 10 C.F.R. § 2.309(f)(1)(vi), with each contention:

[p]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant’s environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner’s belief.

A petitioner must ‘‘read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant’s position and the petitioner’s opposing view,’’ and explain why it disagrees with the applicant.⁹⁴ If a petitioner does not believe these materials

⁸⁹ *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, and *aff’d in part*, CLI-95-12, 42 NRC 111 (1995).

⁹⁰ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180, *aff’d*, CLI-98-13, 48 NRC 26 (1998).

⁹¹ *Georgia Tech*, LBP-95-6, 41 NRC at 305 (citing *Palo Verde*, CLI-91-12, 34 NRC 149).

⁹² *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-3, 53 NRC 84, 99 (2001) (citing *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 649 (1979), in which it is stated that ‘‘[i]t is neither Congressional nor Commission policy to exclude parties because the niceties of pleading were imperfectly observed’’).

⁹³ *South Texas*, ALAB-549, 9 NRC at 649.

⁹⁴ 54 Fed. Reg. at 33,170; *Millstone*, CLI-01-24, 54 NRC at 358. Also, under 10 C.F.R. § 2.309(f)(2): Contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner. On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant’s environmental report. The petitioner may amend

(Continued)

address a relevant issue, the petitioner is to “explain why the application is deficient.”⁹⁵ A contention that does not directly controvert a position taken by the applicant in the application is subject to dismissal.⁹⁶ An allegation that some aspect of a license application is “inadequate” or “unacceptable” does not give rise to a genuine dispute unless it is supported by facts and a reasoned statement of why the application is unacceptable in some material respect.⁹⁷

those contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant’s documents. Otherwise, contentions may be amended or new contentions filed after the initial filing only with leave of the presiding officer upon a showing that —

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
- (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

Other portions of 10 C.F.R. § 2.309 address late filing and other criteria for contentions and petitions to intervene. Section 2.309(c) provides as follows:

(c) Nontimely filings. (1) Nontimely requests and/or petitions and contentions will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board designated to rule on the request and/or petition and contentions that the request and/or petition should be granted and/or the contentions should be admitted based upon a balancing of the following factors to the extent that they apply to the particular nontimely filing:

- (i) Good cause, if any, for the failure to file on time;
- (ii) The nature of the requestor’s/petitioner’s right under the Act to be made a party to the proceeding;
- (iii) The nature and extent of the requestor’s/petitioner’s property, financial or other interest in the proceeding;
- (iv) The possible effect of any order that may be entered in the proceeding on the requestor’s/petitioner’s interest;
- (v) The availability of other means whereby the requestor’s/petitioner’s interest will be protected;
- (vi) The extent to which the requestor’s/petitioner’s interests will be represented by existing parties;
- (vii) The extent to which the requestor’s/petitioner’s participation will broaden the issues or delay the proceeding; and
- (viii) The extent to which the requestor’s/petitioner’s participation may reasonably be expected to assist in developing a sound record.

⁹⁵ 54 Fed. Reg. at 33,170; *Palo Verde*, CLI-91-12, 34 NRC at 156.

⁹⁶ See *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992).

⁹⁷ *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-16, 31 NRC 509, 521 & n.12 (1990).

As the D.C. Circuit Court of Appeals has observed, in a case cited by the Commission in its Statement of Consideration for the 1989 revisions to the Rules of Practice,⁹⁸ “a protestant does not become entitled to an evidentiary hearing merely on request, or on a bald or conclusory allegation that . . . a dispute exists. The protestant must make a minimal showing that material facts are in dispute, thereby demonstrating that an ‘inquiry in depth’ is appropriate.”⁹⁹ However, notwithstanding the burden the contention admissibility rules impose on petitioners to put forth a sufficient factual basis, the Commission has also stated that this “does not shift the ultimate burden of proof from the applicant to the petitioner.”¹⁰⁰ Continuing, the Commission observed in *Yankee*:

Nor [do the contention admissibility rules] require a petitioner to prove its case at the contention stage. For factual disputes, a petitioner need not proffer facts in “formal affidavit or evidentiary form,” sufficient “to withstand a summary disposition motion.” . . . On the other hand, a petitioner “must present sufficient information to show a genuine dispute” and reasonably “indicating that a further inquiry is appropriate.”¹⁰¹

B. Scope of Subjects Admissible in License Renewal Proceedings

Commission regulations and case law address in some detail the scope of license renewal proceedings, which generally concern requests to renew 40-year licenses for additional 20-year terms.¹⁰² The regulatory authority relating to license renewal is found in 10 C.F.R. Parts 51 and 54. Part 54 concerns the “Requirements for Renewal of Operating Licenses for Nuclear Power Plants,” and addresses safety-related issues in license renewal proceedings. Part 51, concerning “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions,” addresses the environmental aspects of license

⁹⁸ 54 Fed. Reg. at 33,171.

⁹⁹ *Connecticut Bankers Ass’n v. Board of Governors*, 627 F.2d 245, 251 (D.C. Cir. 1980).

¹⁰⁰ *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 249 (1996) (citing 54 Fed. Reg. at 33,171).

¹⁰¹ *Id.* (citing *Georgia Tech*, CLI-95-12, 42 NRC at 118); see *Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 51 (1994).

¹⁰² Section 54.31(b) of 10 C.F.R. provides that:

[a] renewed license will be issued for a fixed period of time, which is the sum of the additional amount of time beyond the expiration of the operating license (not to exceed 20 years) that is requested in a renewal application plus the remaining number of years on the operating license currently in effect. The term of any renewed license may not exceed 40 years.

Section 50.51(a) of 10 C.F.R. states in relevant part that “[e]ach [original] license will be issued for a fixed period of time to be specified in the license but in no case to exceed 40 years from date of issuance.”

renewal. The Commission has interpreted these provisions in various adjudicatory proceedings, probably most extensively in a decision in the 2001 *Turkey Point* proceeding.¹⁰³

1. Safety-Related Issues in License Renewal Proceedings

Various sections of Part 54 speak to the scope of safety-related issues in license renewal proceedings. First, 10 C.F.R. § 54.4, titled “Scope,” specifies plant systems, structures, and components within the scope of this part. Sections 54.3, 54.21, and 54.29 provide additional definition of what is encompassed within a license renewal review, limiting the scope further to aging-related issues associated with the functions of the preceding plant systems, structures, and components.¹⁰⁴ Applicants must “demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation,” at a “detailed . . . ‘component and structure level,’ rather than at a more generalized ‘system level.’”¹⁰⁵

The Commission in *Turkey Point* stated that, in developing 10 C.F.R. Part 54 beginning in the 1980s, it sought “to develop a process that would be both efficient, avoiding duplicative assessments where possible, and effective, allowing the NRC Staff to focus its resources on the most significant safety concerns at issue during the renewal term.”¹⁰⁶ Noting that the “issues and concerns involved in an extended 20 years of operation are not identical to the issues reviewed when a reactor facility is first built and licensed,” the Commission found that requiring a full reassessment of safety issues that were “thoroughly reviewed when the facility was first licensed” and continue to be “routinely monitored and assessed by ongoing agency oversight and agency-mandated licensee programs” would be “both unnecessary and wasteful.”¹⁰⁷ Nor did the Commission “believe

¹⁰³ See *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 11-13 (2001); see also *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 363-64 (2002); *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-14, 48 NRC 39, 41, *motion to vacate denied*, CLI-98-15, 48 NRC 45 (1998); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2 and 3), CLI-98-17, 48 NRC 123, 125 (1998); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), LBP-04-15, 60 NRC 81, 90, *aff’d*, CLI-04-36, 60 NRC 631 (2004).

¹⁰⁴ See Final Rule: “Nuclear Power Plant License Renewal; Revisions,” 60 Fed. Reg. 22,461 (May 8, 1995).

¹⁰⁵ *Turkey Point*, CLI-01-17, 54 NRC at 8 (citing 60 Fed. Reg. at 22,462).

¹⁰⁶ *Id.* at 7.

¹⁰⁷ *Id.*

it necessary or appropriate to throw open the full gamut of provisions in a plant's current licensing basis to re-analysis during the license renewal review."¹⁰⁸

The Commission chose, rather, to focus the NRC license renewal safety review "upon those potential detrimental effects of aging that are not routinely addressed by ongoing regulatory oversight programs," which it considered "the most significant overall safety concern posed by extended reactor operation."¹⁰⁹ The Commission has also framed the focus of license renewal review as being on "plant systems, structures, and components for which current [regulatory] activities and requirements *may not* be sufficient to manage the effects of aging in the period of extended operation."¹¹⁰ An issue can be related to plant aging and still not warrant review at the time of a license renewal application, if an aging-related issue is "adequately dealt with by regulatory processes" on an ongoing basis.¹¹¹ For example, if a structure or component is already required to be replaced "at mandated, specified time periods," it would fall outside the scope of license renewal review.¹¹²

2. *Environmental Issues in License Renewal Proceedings*

Regulatory provisions relating to the environmental aspects of license renewal include, most significantly, 10 C.F.R. §§ 51.53(c), 51.95(c), and 51.103(a)(5), and Appendix B to Subpart A. Section 51.53(c) requires a license renewal applicant to submit with its application an environmental report (ER), which "must contain

¹⁰⁸ *Id.* at 9. "Current licensing basis" (CLB) is described by the Commission in *Turkey Point* as follows:

["CLB" is] a term of art comprehending the various Commission requirements applicable to a specific plant that are in effect at the time of the license renewal application. The current licensing basis consists of the license requirements, including license conditions and technical specifications. It also includes the plant-specific design basis information documented in the plant's most recent Final Safety Analysis Report, and any orders, exemptions, and licensee commitments that are part of the docket for the plant's license, i.e., responses to NRC bulletins, generic letters, and enforcement actions, and other licensee commitments documented in NRC safety evaluations or licensee event reports. *See* 10 C.F.R. § 54.3. The current licensing basis additionally includes all of the regulatory requirements found in Parts 2, 19, 20, 21, 30, 40, 50, 55, 72, 73, and 100 with which the particular applicant must comply. *Id.*

. . . . The [CLB] represents an "evolving set of requirements and commitments for a specific plant that are modified as necessary over the life of a plant to ensure continuation of an adequate level of safety." 60 Fed. Reg. at 22,473. It is effectively addressed and maintained by ongoing agency oversight, review, and enforcement.

Id.

¹⁰⁹ *Id.* at 7.

¹¹⁰ *Id.* at 10 (citing 60 Fed. Reg. at 22,469) (alteration in original).

¹¹¹ *Id.* at 10 n.2.

¹¹² *Id.*

a description of the proposed action, including the applicant's plans to modify the facility or its administrative control procedures as described in accordance with § 54.21," and "describe in detail the modifications directly affecting the environment or affecting plant effluents that affect the environment."¹¹³ The report is not required to contain analyses of environmental impacts identified as "Category 1," or "generic," issues in Appendix B to Subpart A of Part 51, but "must contain analyses of the environmental impacts of the proposed action, including the impacts of refurbishment activities, if any, associated with license renewal and the impacts of operation during the renewal term," for issues identified as "Category 2," or "plant specific," issues in appendix B to subpart A.¹¹⁴

As required under 10 C.F.R. § 51.95(c), the Commission in 1996 adopted a "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (GEIS), published as NUREG-1437, which provides data supporting the table of Category 1 and 2 issues in Appendix B.¹¹⁵ Issuance of the 1996 GEIS was part of an amendment of the requirements of Part 51 undertaken by the Commission to establish environmental review requirements for license renewals "that were both efficient and more effectively focused."¹¹⁶

Issues on which the Commission found that it could draw "generic conclusions applicable to all existing nuclear power plants, or to a specific subgroup of plants," were, as indicated above, identified as "Category 1" issues.¹¹⁷ This categorization was based on the Commission's conclusion that these issues involve "environmental effects that are essentially similar for all plants," and that they thus "need not be assessed repeatedly on a site-specific basis, plant-by-plant."¹¹⁸ Accordingly, under Part 51, license renewal applicants may in their site-specific ERs refer to and adopt the generic environmental impact findings found in Table B-1, Appendix B for all Category 1 issues.¹¹⁹

On other issues, however, the Commission was not able to make generic environmental findings, and therefore applicants must provide a plant-specific review of all these Category 2 environmental issues.¹²⁰ These issues are characterized by

¹¹³ 10 C.F.R. § 51.53(c)(2); *see id.* § 51.53(c)(1).

¹¹⁴ 10 C.F.R. § 51.53(c)(3)(i), (ii).

¹¹⁵ *See* NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (May 1996) [hereinafter GEIS]; Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467 (June 5, 1996), *amended by* 61 Fed. Reg. 66,537 (Dec. 18, 1996); 10 C.F.R. Part 51, Subpart A, App. B n.1.

¹¹⁶ *Turkey Point*, CLI-01-17, 54 NRC at 11.

¹¹⁷ *Id.* (citing 10 C.F.R. Part 51, Subpart A, App. B).

¹¹⁸ *Id.*

¹¹⁹ *Id.* (citing 10 C.F.R. § 51.53(c)(3)(i)).

¹²⁰ *Id.* (citing 10 C.F.R. Part 51, Subpart A, App. B).

the Commission as involving environmental impact severity levels that “might differ significantly from one plant to another,” or impacts for which additional plant-specific mitigation measures should be considered; for such issues applicants must provide plant-specific analyses of the environmental impacts.¹²¹ For example, the “impact of extended operation on endangered or threatened species varies from one location to another,” according to the Commission, and is thus included within Category 2.¹²²

Finally, section 51.103 defines the requirements for the “record of decision” relating to any license renewal application, including the standard that the Commission, in making such a decision pursuant to Part 54, “shall determine whether or not the adverse environmental impacts of license renewal are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.”¹²³

VI. PETITIONERS’ CONTENTIONS, PARTY ARGUMENTS, AND BOARD ANALYSIS AND RULINGS

With the preceding general contention requirements and license renewal scope principles in mind, we turn now to the Petitioners’ five contentions now remaining in this proceeding.

A. Contention 1 (Regarding Embrittlement of Reactor Pressure Vessel)

Contention 1 states as follows:

The license renewal application is untimely and incomplete for failure to address the continuing crisis of embrittlement.¹²⁴

The basis provided for Contention 1 states:

The Petitioners allege that the Palisades license renewal application is fundamentally deficient because it does not adequately address technical and safety issues arising out of the embrittlement of the reactor pressure vessel and unresolved Pressure Thermal Shock (“PTS”) concerns that might reasonably result in the failure of the reactor pressure vessel (“RPV”). The Palisades nuclear power station is identified as prone to early embrittlement of the reactor pressure vessel, which is a vital safety component. As noted in the opinion of Petitioners’ expert on embrittlement, Mr.

¹²¹ *Id.*

¹²² *Id.* at 12.

¹²³ 10 C.F.R. § 51.103(a)(5).

¹²⁴ Petition at 4.

Demetrios Basdekas, retired from the Nuclear Regulatory Commission, the longer Palisades operates, the more embrittled its RPV becomes, with decreasing safety margins in the event of the initiation of emergency operation procedures. Therefore, a hearing on the public health and safety effects of a prospective additional twenty years of operation, given the present and prospective embrittlement trend of the RPV[,] is imperative to protecting the interests of those members of the petitioning organization who are affected by this proceeding.¹²⁵

1. NMC Response to Contention 1

The Applicant claims that Contention 1 is inadmissible because it “(i) fails to challenge the Application and demonstrate the existence of a genuine dispute on a material issue of fact or law; (ii) fails to provide a factual basis to support any dispute with the Application; and (iii) improperly challenges Commission regulations.”¹²⁶ NMC argues that the Petitioners “provide *neither* explanation *nor* factual basis for their claim that the Application is ‘deficient,’” because, “[c]ontrary to the Petitioners’ bald claim, the Application addresses the technical and safety issues related to RPV embrittlement in accordance with applicable NRC regulations.”¹²⁷

NMC further urges that, under 10 C.F.R. § 54.21(c)(1), it may choose one of three ways to address time-limited aging analyses such as neutron embrittlement of the reactor pressure vessel (RPV), including demonstrating that existing analyses “remain valid for the period of extended operation,” revising existing analyses to demonstrate their validity “to the end of the period of extended operation,” or “demonstrating that the effects of aging on the intended function(s) will be adequately managed for the period of extended operation.”¹²⁸ Stating that it has chosen the third option, NMC cites several specific sections of the application in which its plan is asserted to comply with 10 C.F.R. § 50.61, which governs “Fracture toughness requirements for protection against pressurized thermal shock events.”¹²⁹

NMC argues that it demonstrates that the effects of embrittlement will be adequately managed for the period of extended operation through compliance with section 50.61(b)(7), by submitting information to the NRC at least 3 years before it is projected to exceed the pressurized thermal shock (PTS) criterion

¹²⁵ *Id.*

¹²⁶ NMC Answer at 10.

¹²⁷ *Id.*

¹²⁸ *Id.* at 10-11 (quoting from 10 C.F.R. § 54.21(c)(1)).

¹²⁹ *Id.* at 11-12.

defined in the regulations,¹³⁰ as to whether it will either undertake the safety analysis required by section 50.61(b)(4) or perform a thermal-annealing treatment of the reactor vessel under section 50.61(b)(7).¹³¹ NMC argues that Petitioners nowhere take issue with any aspect of the program described in the Application, as required under 10 C.F.R. § 2.309(f)(1)(vi).¹³² Nor, it is argued, do Petitioners provide any factual basis challenging the Application's program for managing RPV embrittlement.¹³³

Finally, NMC suggests that Contention 1's "challenge of the adequacy of the steps provided for by the Application is a collateral attack on the NRC regulations fully embraced by the Application," because it "advocate[s] stricter requirements than those imposed by the regulations."¹³⁴

2. NRC Staff Response to Contention 1

The NRC Staff argues that Contention 1 is inadmissible because it "lacks basis, support and specificity, . . . is immaterial, and fails to establish that a genuine dispute exists on a material issue of law or fact."¹³⁵ According to the Staff, the contention makes "generic statements that are unsupported by any documentary evidence or affidavit by an expert witness" and "fail[s] to provide references to . . . relevant portions of NMC's application," thereby failing to meet the requirements of 10 C.F.R. § 2.309(f)(1)(iv), (v), and (vi).¹³⁶ Staff also argued, both in its initial pleading and in oral argument, that Contention 1 is "beyond the scope of this proceeding because it raises issues that are subject to regulations independent of license renewal,"¹³⁷ referring to 10 C.F.R. § 50.61, but withdrew this argument after oral argument.¹³⁸

¹³⁰ As stated at 10 C.F.R. § 50.61(a)(2) & (8), "*Pressurized Thermal Shock Event* means an event or transient in pressurized water reactors (PWRs) causing severe overcooling (thermal shock) concurrent with or followed by significant pressure in the reactor vessel," and "*PTS Screening Criterion* means the value of RT_{PTS} [a reference temperature] for the vessel beltline material above which the plant cannot continue to operate without justification." See 10 C.F.R. § 50.61(a)(3)-(7).

¹³¹ NMC Answer at 11-13.

¹³² *Id.* at 13.

¹³³ *Id.* at 14.

¹³⁴ *Id.* (citing *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1656 (1982)).

¹³⁵ Staff Answer at 12.

¹³⁶ *Id.* at 12-13; see also text accompanying notes 61, 62.

¹³⁷ *Id.* at 13; see also, e.g., Tr. at 134, 234.

¹³⁸ Uttal 11/8/05 Letter.

3. *Petitioners' Reply on Contention 1*

Apart from urging that Contention 1 is within the scope of license renewal proceedings,¹³⁹ contesting NMC's argument that Contention 1 improperly challenges NRC regulations,¹⁴⁰ and raising certain arguments concerning the provisions of 10 C.F.R. § 50.61 (referring to various sections of the Application),¹⁴¹ Petitioners' Reply primarily provides additional support for the contention, of the sort that might have been included in the original basis for the contention.¹⁴² Petitioners also assert that certain NRC documents related to a planned revision of the Pressure Thermal Shock rule have been unavailable to them, and that the standard for admitting Contention 1 should therefore be lowered, arguing in conclusion that they have in any event made a "minimal showing that material facts are in dispute, thereby demonstrating that an 'inquiry in depth' is appropriate."¹⁴³ Various additional arguments were made in oral argument, generally addressing the same areas, which we note to the extent we find them relevant in our discussion below.

4. *Licensing Board Ruling on Contention 1*

We wish to emphasize at the outset that we find the subject matter of this contention, embrittlement of the reactor pressure vessel, to be a very serious topic, with regard to Palisades or indeed any nuclear power plant.¹⁴⁴ Moreover,

¹³⁹ Petitioners' Reply at 2.

¹⁴⁰ *Id.* at 17-20.

¹⁴¹ *Id.* at 5-9.

¹⁴² *Id.* at 2-4, 6-23.

¹⁴³ *Id.* at 23 (citing *River Bend*, CLI-94-10, 40 NRC at 51); *see also id.* at 22-23.

¹⁴⁴ To provide context for the technical matters relating to Contention 1, the technical members of the Licensing Board provide the following summary:

Radiation-induced embrittlement, a material degradation phenomenon unique to nuclear power reactors, occurs when plant components are exposed to sufficiently high levels of neutron radiation to cause changes in the properties of the material of which the components are made. The reactor pressure vessel is the most significant component relevant to embrittlement, because it, unlike other components, cannot easily be replaced. As suggested by Petitioners in the basis for Contention 1, the longer any plant operates, the more embrittled the RPV becomes, with decreasing safety margins in the event of an abnormal occurrence.

The phenomenon of radiation embrittlement occurs when a neutron from the reactor core strikes an atom of the material making up the reactor vessel, thereby knocking the atom out of position. Over time as more and more atoms are hit, the mechanical properties of the material change. The material becomes harder to deform and loses its ability to withstand deformation without breaking or fracturing, particularly at low temperatures. The process is a serious safety concern because it can lead to failure of the reactor pressure vessel.

(Continued)

embrittlement is clearly within the scope of license renewal, as the Staff now recognizes,¹⁴⁵ and as evidenced by references to pressurized thermal shock, the reactor vessel, and related concepts in the license renewal rules. The issue is undoubtedly a matter that warrants close attention by all concerned.

NRC recognizes that RPV embrittlement and the associated risk of pressurized thermal shock (PTS) events may become serious safety concerns during the operating life of pressurized water reactors (PWRs). As stated by the Commission in the Statement of Considerations for the current PTS rules:

[i]n these [PTS] events, rapid cooling of the reactor vessel internal surface causes a temperature distribution across the reactor vessel wall. This temperature distribution produces a thermal stress on the reactor vessel The magnitude of the thermal stress varies with the rate of change of temperature, and with time during the transient, and its effect is compounded by coincident pressure stresses.

. . . .

As long as the fracture resistance of the reactor vessel material is relatively high, these events are not expected to cause vessel failure. However, the fracture resistance of the [RPV] material decreases with the integrated exposure to fast neutrons during the life of a nuclear power plant. . . . If the fracture resistance of the vessel has been reduced sufficiently by neutron irradiation, severe PTS events could cause small flaws that might exist near the inner surface to propagate into the vessel wall. The assumed initial flaw might be enlarged into a crack through the vessel wall of sufficient extent to threaten vessel integrity and, therefore, core cooling capability. 50 Fed. Reg. 29,937, 29,938 (July 23, 1985).

The PTS rule in 10 C.F.R. § 50.61(b), which applies to PWRs throughout their operating life, requires plants to project the course that embrittlement will take over the reactor's operating life. Methods and equations that a licensee must use to make these projections are prescribed in section 50.61(c), based on the neutron flux, or number of neutrons passing through the material per unit of time per unit area, to which the reactor vessel materials are subject. Under section 50.61(b)(2), screening criteria have been established to ensure that embrittlement does not progress to the extent that it represents a safety hazard.

As noted in the Statement of Considerations, these screening criteria are set conservatively and represent a level of embrittlement at which there can be a reasonable assurance that there is no undue risk to health and safety because of potential PTS events. 50 Fed. Reg. at 29,939. When a PWR is projected to exceed the screening criteria, the licensee must demonstrate that continued plant operation does not present an undue threat to public health or safety.

Under section 50.61(b)(3), flux reduction programs are the preferred method to avoid exceeding the PTS criterion, because such programs slow the progress of the embrittlement process itself. The rule recognizes, however, that it may not always be possible to slow the embrittlement process sufficiently to keep a reactor from exceeding the screening criteria at some point, in which case a licensee is required under 50.61(b)(4) to "submit a safety analysis to determine what, if any, modifications to equipment, systems, and operations are necessary to prevent potential failure of the reactor vessel as a result of postulated PTS events if continued operation beyond the screening criterion is allowed," and to submit this analysis 3 years before the RPV is projected to exceed the screening criteria. Under section 50.61(b)(5) the NRC evaluates this safety analysis and decides, on a case-by-case basis, whether to permit continued operation once the screening threshold has been reached. As a final resort, section 50.61(b)(7) permits a licensee to anneal the reactor pressure vessel according to requirements specified in 10 C.F.R. § 50.66. If none of these methods satisfies NRC regulatory requirements, the reactor is not permitted to operate. 10 C.F.R. § 50.61(b)(6)-(7).

¹⁴⁵ See Uttal 11/8/05 Letter.

We now look to whether Petitioners have, in Contention 1 and its supporting basis, complied with the remainder of the provisions of 10 C.F.R. § 2.309(f)(1) and relevant case law. We find the contention falls short in several particulars, most importantly those relating to the requirements of subsections (ii), (v), and (vi).

We begin our analysis by observing, with respect to the requirement under section 2.309(f)(1)(ii) for a “brief explanation of the basis for the contention,” that although the basis for Contention 1 is brief, and provides some explanation, it contains only one reference that is arguably specific to the Palisades plant — that it has been “[i]dentified as prone to early embrittlement of the reactor pressure vessel.”¹⁴⁶ Certainly, it might be said that one cannot have both brevity and also extensive specificity. But it is not unreasonable to require enough specificity in the explanation offered in the basis for a contention, such that a matter relating to a particular facility is stated in sufficient detail that it clearly states an issue that is susceptible to litigation with regard to that facility. We find Petitioners have not done this in Contention 1.

Although some of the information provided by Petitioners in their September 2005 Reply and their January 2006 Response is more specifically related to the Palisades plant, we find that none of this meets the late-filing criteria of 10 C.F.R. § 2.309(c), (f)(2), as none of it appears to have previously been unavailable. One exhibit provided with the Reply is from a 1970 report, many exhibits or referenced items are documents produced in the 1990s, and the most recent document is a March 2005 letter. Nor do we find any good cause for Petitioners not to have provided this information with the original petition, nor any other reason to consider it under other relevant criteria. Our analysis herein is therefore based only on that information actually provided in the original petition in support of Contention 1.

Most of this information is general and provides no specifics regarding, for example, the “present and prospective embrittlement trend of the RPV” of the Palisades plant, which would distinguish it from any other nuclear power plant.¹⁴⁷ For example, the statement that “the longer Palisades operates, the more embrittled its RPV becomes, with decreasing safety margins in the event of the initiation of emergency operation procedures,”¹⁴⁸ is obvious, and presents no specific issue susceptible to litigation. In sum, it cannot be said that Contention 1 explains “with specificity, particular safety or legal reasons requiring rejection of the contested [Application].”¹⁴⁹

¹⁴⁶ Petition at 4.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Millstone*, CLI-01-24, 54 NRC at 359-60.

We also find Contention 1 to be deficient with regard to the requirement under section 2.309(f)(1)(v) that a petition “[p]rovide a concise statement of the alleged facts or expert opinion which support the . . . petitioner’s position on the issue and on which the petitioner intends to rely at hearing,” and also provide “references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue.”

Taking the statements in the basis for Contention 1 at face value, Petitioners have provided no expert support for any allegations specific to the Palisades plant, even viewing the contention as being “merely inartfully drafted.”¹⁵⁰ They refer to no documents or other sources on which they plan to rely at any hearing, and the facts provided are, as indicated above, general and nonspecific to the Palisades plant, apart from the somewhat vague reference to the plant being “prone to early embrittlement of the reactor pressure vessel.”¹⁵¹ Making sense of this, particularly in the absence of any documents, sources, or expert on which Petitioners plan to rely at hearing, demands inferences we do not find to be warranted in this case; in other words, not enough has been provided to warrant “further inquiry.”¹⁵²

Petitioners also fail to meet the requirement of section 2.309(f)(1)(vi) that they “[p]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact,” which information must:

include references to the specific portions of the application (including the applicant’s environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner’s belief.

Obviously, the Petitioners and NMC differ with regard to whether the license renewal should be granted, but the actual issue raised by the contention is not stated with specificity or clarity; no reference is made to any specific portion of the Application; and any “identification” of any failure “to contain information on a relevant matter as required by law” is meager at best.

In the contention itself, the Application is asserted to be “incomplete for *failure* to address the continuing crisis of embrittlement.”¹⁵³ But in the basis, the Application is challenged as being “fundamentally deficient because it does

¹⁵⁰ See Staff Reply at 9.

¹⁵¹ Petition at 4.

¹⁵² *Yankee*, CLI-96-7, 43 NRC at 249. We would note that the mere possibility, expressed in Petitioners’ January 3 Response to our December 21 Order, that Petitioners might in the future find an expert who could provide the assistance necessary to define clearly the issues in question and effectively litigate them, does not warrant admitting the contention at this stage of the proceeding, when we must rule on such questions of admissibility based on what has been provided to this point.

¹⁵³ Petition at 4 (emphasis added).

not *adequately* address [embrittlement- and PTS-related] technical and safety issues”¹⁵⁴ that are not otherwise specified. It cannot be ascertained whether the drafters of Contention 1 actually even read the Application. In any event, no sections or specific contents of it are referenced to identify any specific inadequacy, and the asserted “failure to address” embrittlement is not explained with any specificity or tied in any way to the actual Application.

With respect to subsections (i), (iii), and (iv) of section 2.309(f)(1), we would not deny the contention on the basis of any of these requirements. We would, however, make the following additional observations on Contention 1:

First, the lack of specificity that runs through Contention 1 is also somewhat problematic with regard to the requirement to “[d]emonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding,” under section 2.309(f)(1)(iv). Petitioners have made no reference to any of the findings required under section 54.29, which defines the standards for issuance of a renewed license. A conclusion that the application was either “untimely and incomplete for failure to address the continuing crisis of embrittlement,” as asserted in the contention, or “deficient because it does not *adequately* address technical and safety issues arising out of embrittlement of the [RPV] and unresolved [PTS] concerns that might reasonably result in the failure of the [RPV],” as alleged in the basis to the contention, would obviously make a difference in the outcome of this proceeding. Petitioners do not, however, explain at all how such a conclusion would be reached *on NMC’s License Renewal Application itself*. Thus, although an appropriately supported contention on embrittlement would clearly be material to the findings necessary for relicensing under section 54.29, Petitioners’ demonstration that their contention as written raises such a material issue is minimal, in the sense of showing any meaningful ability to litigate any “pertinent” and “concrete” issue of concern.¹⁵⁵

In addition, regarding the requirement of section 2.309(f)(1)(iii) that a demonstration be made that “the issue raised in the contention is within the scope of the proceeding,” we have observed above that embrittlement is within the scope of a license renewal proceeding. But, as discussed above, the Petitioners provide very little with regard to the particular way in which embrittlement is an issue susceptible to litigation in this proceeding. The question of the extent to which compliance with 10 C.F.R. § 50.61 will satisfy the provisions of Part 54, specifically sections 54.21 and 54.29, appears to be a thorny and difficult matter. This suggests that any contention relating to this issue should be clearly stated and well supported. This was not, however, achieved by Petitioners in this proceeding.

¹⁵⁴ *Id.* (emphasis added).

¹⁵⁵ *See* 69 Fed. Reg. at 2189-90.

Finally, we would note that in reaching our ruling on Contention 1, as well as the remaining contentions, we recognize that the new rule's omission of comparable provisions for amendment of petitions as of right, as permitted under prior rules,¹⁵⁶ might in certain circumstances place some petitioners in a difficult position. This would be particularly true for those pressed for opportunity and time to research and develop relevant technical and legal issues and arguments, or lacking easy access to experts or counsel competent in NRC practice, to assist them in timely drafting contentions meeting the strict contention admissibility requirements. But, as noted *supra*,¹⁵⁷ no request for extension to address any such concerns was made in this proceeding.

B. Contention 2 (Regarding Alleged Contamination of Drinking Water)

Petitioners' Contention 2 states:

Excessive radioactive and toxic chemical contamination in local drinking water due to emissions from Palisades nuclear power plant as part of its daily, "routine" operations.¹⁵⁸

The basis for this contention is the following:

The radioactive and toxic chemical emissions from the Palisades nuclear power plant into the waters of Lake Michigan contaminate the recently-installed drinking water supply intake for the City of South Haven, built just offshore from Van Buren State Park and just downstream from the Palisades reactor, due to the direction of the flow of Lake Michigan's waters and the very close proximity of the Palisades reactor to the South Haven drinking water supply intake. U.S. National Oceanographic and Atmospheric Administration models confirm the direction of water flow in Lake Michigan toward the intake. Petitioners-Intervenors hope to produce public records of toxics and radiation testing of the water source to evidence this public health problem.¹⁵⁹

¹⁵⁶ Prior to adoption of the Part 2 Revision that went into effect in February 2004, petitioners were not required to file any contentions until after they had filed a petition for leave to intervene and after the licensing board had scheduled a prehearing conference, *see* previous version 10 C.F.R. § 2.714(b)(1), and were allowed to amend and supplement their petitions within certain time periods as a matter of right in NRC adjudication proceedings, *see* previous version 10 C.F.R. § 2.714(a)(3). This allowed for a greater opportunity to focus and articulate precisely issues raised in contentions. The current rules require interested persons to file contentions 60 days after the *Federal Register* notice is published, 10 C.F.R. § 2.309(b)(3)(iii), and any amendments filed thereafter must meet the requirements of section 2.309(f)(2).

¹⁵⁷ *See supra* note 31.

¹⁵⁸ Petition at 4.

¹⁵⁹ *Id.* at 4-5.

1. NMC Response to Contention 2

NMC argues Petitioners' Contention 2 is inadmissible on two grounds: first, "the substance of the assertions . . . are outside the scope of this proceeding"; and second, the "assertions are vague and unsupported by any factual basis."¹⁶⁰ NMC contends the issue of radioactive and chemical emissions from the Palisades plant is not related to aging-management or time-limited aging analyses, but relates rather to the plant's daily operations, and therefore is not within the scope of this license renewal proceeding.¹⁶¹

NMC urges that, insofar as Petitioners' contention seeks to raise an issue under NEPA, it "represents a challenge to the scope of the environmental review specified in 10 C.F.R. § 51.53(c) and to the NRC's generic environmental findings in the GEIS and Appendix B to 10 C.F.R. Part 51."¹⁶² NMC notes that under Appendix B, radiation exposure to the public during the renewal term is categorized as a Category 1 issue, "determined to be small, based on a generic finding that radiation doses to the public will continue at current levels associated with normal operations."¹⁶³ In addition, NMC points out that the discharge of chlorine and other biocides, the discharge of metals, as well as the discharge of sanitary wastes and minor chemical spills are also classified as resolved Category 1 issues.¹⁶⁴

In support of their second ground for objecting to Contention 2 — that it is vague and unsupported by any factual basis — NMC argues that Petitioners fail to identify what toxic and radioactive substances are allegedly being released from the plant, and fail to provide any facts or expert opinion in support of their contention. NMC insists Petitioners' statement that they "*hope to produce* public records of toxics and radiation testing" is inadequate to meet the Commission's pleading requirements.¹⁶⁵

2. NRC Staff Response to Contention 2

The Staff argues Contention 2 is inadmissible on the grounds that it lacks basis and support, is beyond the scope of this proceeding, is immaterial, and fails to establish that a genuine dispute exists on a material issue of law or fact.¹⁶⁶ Asserting that Petitioners fail to support their claim with specific factual

¹⁶⁰ NMC Answer at 14.

¹⁶¹ *Id.* at 15.

¹⁶² *Id.*

¹⁶³ *Id.* (citing 10 C.F.R. Part 51, Subpart A, App. B., Table B-1).

¹⁶⁴ *See id.*

¹⁶⁵ *Id.* at 16 (quoting Petition at 5 (emphasis added by NMC)).

¹⁶⁶ *See* Staff Answer at 14.

information or references to specific portions of NMC's Application, the Staff argues that Petitioners make only generalized and unsupported arguments and, as such, fail to meet the Commission's pleading requirements.¹⁶⁷

3. *Petitioners' Reply on Contention 2*

In their Reply, Petitioners assert that emissions are related to aging, in that deteriorating reactor systems will increase the amounts of toxic chemicals and radioactivity released over time.¹⁶⁸ Petitioners also provide additional facts, along with a reference to experts they have consulted, to support the contention.¹⁶⁹ During oral argument, among other things, Petitioners contended that they could not provide more specific information in support of the contention as to "data on the radioactive content of the water in and around the intake" because "it's not possible at the present time because of it's [*sic*] current use" and because it is "owned by Pacific Gas and Electric."¹⁷⁰

4. *Licensing Board Ruling on Contention 2*

We find Petitioners' Contention 2 to be inadmissible either as a safety or an environmental issue. In the *Turkey Point* proceeding, the Licensing Board struck as beyond the scope of the license renewal proceeding a contention similar to Petitioners' Contention 2, in which the same argument made by Petitioners herein regarding deteriorating systems could also have been made.¹⁷¹ That contention alleged that "the aquatic resources of Biscayne National Park will become contaminated with radioactive material, chemical wastes, and herbicides during the license renewal term."¹⁷² The Board, upheld by the Commission, held that such a contention "does not raise any aspect of the Applicant's aging management review or evaluation of the plant's systems, structures, and components subject to time-aging analysis."¹⁷³ We find Petitioners have likewise shown no admissible aging issues with regard to Contention 2.

To the extent the contention is considered as an environmental claim, it is also inadmissible. As discussed above, "Category 1" issues under 10 C.F.R. Part 51, Appendix B, "are not subject to further evaluation in any license renewal

¹⁶⁷ *Id.* at 14-15.

¹⁶⁸ Petitioners' Reply at 23.

¹⁶⁹ *Id.* at 23-35.

¹⁷⁰ Tr. at 201.

¹⁷¹ *Turkey Point*, LBP-01-6, 53 NRC at 163-64.

¹⁷² *Id.* at 163.

¹⁷³ *Id.* at 164; CLI-01-17, 54 NRC at 5-6.

proceeding.’’¹⁷⁴ Petitioners’ contention — that a license renewal for the Palisades plant will result in excessive radioactive and toxic chemical contamination of the local drinking water — may be viewed as a Category 1 issue covered under the heading ‘‘Radiation exposures to public (license renewal term).’’¹⁷⁵ According to Appendix B the issue of continued radiation exposure during the license renewal period is deemed to have a small significance level with an expectancy that the ‘‘[r]adiation doses to the public will continue at current levels associated with normal operations.’’¹⁷⁶ In addition, Appendix B categorizes the discharge of chlorine or other biocides, sanitary waste and minor chemical spills, and certain metals in wastewater all as Category 1 issues.¹⁷⁷ Although at oral argument Petitioners’ Counsel tried to characterize the contention as raising Category 2 issues so as to make it admissible, his arguments were not persuasive with regard to any of these.¹⁷⁸

For the preceding reasons, Petitioners’ Contention 2 is rejected. Finally, because the subject of the contention is outside the scope of a license renewal proceeding as defined by the Commission, the late-filed information may thus not be considered by us in making our ruling, even if this information were to meet the relevant late-filing criteria.

C. Contention 3 (Regarding Storage of Spent Fuel)

Petitioners’ Contention 3 states as follows:

The Palisades reactor has no place to store its overflowing irradiated nuclear fuel inventory within NRC regulations.¹⁷⁹

The basis provided for Contention 3 states:

The indoor irradiated fuel storage pool reached capacity in 1993. But the outdoor dry cask storage pads at Palisades, both the older one nearer Lake Michigan and the newer one further inland, are in violation of NRC earthquake regulations. 10 C.F.R. § 72.212(b)(2)(i)(B) requires that:

Cask storage pads and areas have been designed to adequately support the static and dynamic loads of the stored casks, considering potential amplification of

¹⁷⁴ *Turkey Point*, LBP-01-6, 53 NRC at 153.

¹⁷⁵ 10 C.F.R. Part 51, Subpart A, App. B, Table B-1.

¹⁷⁶ *Id.*

¹⁷⁷ *See id.*

¹⁷⁸ *See Tr.* at 188-201.

¹⁷⁹ *Petition* at 5.

earthquakes through soil-structure interaction, and soil liquefaction potential or other soil instability due to vibratory ground motion. . . .

According to the Petitioners' anticipated expert, Dr. Ross Landsman, former U.S. Nuclear Regulatory Commission Region III dry cask storage inspector, the older pad violates the liquefaction portion of this regulation, and the new pad violates the amplification portion of the regulation. Petitioners contend that neither the older nor new dry cask storage pads at the Palisades plant were designed in consideration of the factors contained in the cited regulation.¹⁸⁰

1. NMC Response to Contention 3

NMC argues that Contention 3 raises issues outside the scope of license renewal both because spent fuel storage does not fall within the scope of the proceeding as defined in 10 C.F.R. Part 54, and because, as noted by the Commission in the 1999 *Oconee* proceeding, dry cask storage independent spent fuel storage installations (ISFSIs) are licensed under Part 72, which contains its own license renewal procedures.¹⁸¹ Even if spent fuel storage were within the scope of the proceeding, NMC urges, Contention 3 would be inadmissible because it fails to raise any aging-related issue.¹⁸² Further, NMC avers, Contention 3 is barred by the Waste Confidence Rule, as stated in 10 C.F.R. § 51.23(a).¹⁸³

To the extent the Petitioners seek to raise a NEPA issue, Contention 3 challenges and runs afoul of both the Waste Confidence Rule and the GEIS, according to NMC, noting that the Commission in *Oconee* dismissed a contention dealing with onsite waste storage of spent fuel because this is a Category 1 issue.¹⁸⁴

Finally, NMC argues that Contention 3 is not supported by a basis demonstrating a genuine issue, citing earlier studies of the storage cask pads and stating that seismic analysis of the new pads is a current design issue being addressed by NRC Staff through the normal regulatory process.¹⁸⁵

¹⁸⁰ *Id.* (ellipsis in original).

¹⁸¹ NMC Answer at 16-17 (citing 10 C.F.R. §§ 54.4, 72.42(b), 72.212(a)(3); *Oconee*, CLI-99-11, 49 NRC at 344 n.4).

¹⁸² NMC Answer at 18 (citing *Turkey Point*, CLI-01-17, 54 NRC at 23).

¹⁸³ *Id.* at 18. Section 51.23 states in relevant part that “[t]he Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations.” 10 C.F.R. § 51.23(a).

¹⁸⁴ NMC Answer at 18-19 (citing *Oconee*, CLI-99-11, 49 NRC at 343).

¹⁸⁵ NMC Answer at 19-20 (citing NRC Information Notice 95-28, *Emplacement of Support Pads for Spent Fuel Dry Storage Installations at Reactor Sites* (June 5, 1995) at 3).

2. *NRC Staff Response to Contention 3*

The Staff asserts most of the same arguments offered by NMC.¹⁸⁶

3. *Petitioners' Reply on Contention 3*

Petitioners again argue that the dry cask storage pads violate NRC regulations, contending that it is “impossible to disconnect the dry cask storage pad problems from the proposed license extension,”¹⁸⁷ and provide additional facts and support for the contention in their Reply.¹⁸⁸ In addition, Petitioners assert that the Waste Confidence Rule “places *false* confidence in the availability of a geologic repository in the U.S. by the year 2025, . . . biases the NRC in favor of approving a license for the proposed Yucca Mountain [site,] . . . [and] biases the NRC in favor of approving a 20-year license extension at Palisades.”¹⁸⁹ Petitioners distinguish *Oconee* because there was “not firm evidence of regulatory violation concerning onsite waste storage” in that proceeding.¹⁹⁰ In a more general fashion, Petitioners argue (1) that the Board may not inquire into the merits of the contention when determining admissibility; and (2) because “it appears [that Contention 3] would easily meet the operating license standard for a safety issue, the panel must admit their contention for the *continuation* of that operating license for 20 years beyond its expiration.”¹⁹¹

During oral argument, Petitioners' Counsel discussed the possibility of filing a request for a waiver of the application of relevant rules relating to the subject matter of Contention 3, as permitted under 10 C.F.R. § 2.335(b).¹⁹² To the knowledge of the Board, however, no such request was ever actually filed.

4. *Licensing Board Ruling on Contention 3*

Notwithstanding Petitioners' arguments, we find Contention 3 to be inadmissible because it is outside the relatively narrow scope of a license renewal proceeding as defined by the Commission in its rules and relevant case law.¹⁹³

¹⁸⁶ See Staff Answer at 15-16.

¹⁸⁷ Petitioners' Reply at 39.

¹⁸⁸ *Id.* at 35-42.

¹⁸⁹ *Id.* at 39.

¹⁹⁰ *Id.* at 39-40.

¹⁹¹ *Id.* at 41-42.

¹⁹² Tr. at 216-20, 264, 271.

¹⁹³ See *Oconee*, CLI-99-11, 49 NRC at 343; *Turkey Point*, CLI-01-17, 54 NRC at 6. Again, we also note that, even were certain additional facts offered by Petitioners in their Reply and at oral

(Continued)

Petitioners may seek to raise alleged regulatory violations in a petition pursuant to 10 C.F.R. § 2.206, requesting that the NRC Staff take an enforcement action. And any person may also file a request for waiver under section 2.335(b), or a rulemaking petition, regarding any NRC regulation.¹⁹⁴ But Petitioners have not raised an admissible issue for a license renewal proceeding under relevant rules and law; nor, to the extent they may even arguably be viewed as having requested a waiver of any rule, have they demonstrated any grounds for any such waiver that would make the contention admissible.¹⁹⁵ We must therefore reject this contention.

D. Contention 7 (Regarding Alleged Nonradiological Contamination of Water)

Contention 7 states as follows:

Non-radiological persistent toxic burdens to area water sources.¹⁹⁶

The basis offered in support of this contention is as follows:

The impact of 20 additional years of pollution by toxics [*sic*] disclosed but not adequately controlled under requirements of the National Pollutant Discharge Elimination System will directly affect water quality of nearby sources, including Lake Michigan. In 2000, for example, Palisades was found to be in “continuing noncompliance” for its apparent multiple misuses of Betz Clam-Trol in Lake Michigan for the dispersion of mussels and clams affecting the water intakes. *See* <http://www.epa.gov/region5/water/weca/reports/mi4qtr01.txt>.

NPDES violations also contradicts [*sic*] the spirit, intention and explicit recommendation of The International Joint Commission. In its “Ninth Biennial Report on Great Lakes Water Quality,” the Commission’s Recommendation #16 (at p. 42) urges that “[g]overnments monitor toxic chemicals used in large quantities at nuclear power plants, identify radioactive forms of the toxic chemicals and analyze their impact on the Great Lakes ecosystem.”¹⁹⁷

argument to be considered, since the subject of the contention is outside the scope of a license renewal proceeding, the additional facts would not be relevant in this proceeding even were they to meet the late-filing criteria.

¹⁹⁴ In this regard, however, we note that the Commission recently denied a petition for rulemaking on the Waste Confidence Rule, explicitly finding that the rule does not bias the agency towards granting a license for Yucca Mountain. *See* State of Nevada; Denial of a Petition for Rulemaking, 70 Fed. Reg. 48,329 (Aug. 17, 2005).

¹⁹⁵ *See* Tr. at 216-20, 264; 10 C.F.R. § 2.335; *Turkey Point*, CLI-01-17, 54 NRC at 10. Petitioners are, of course, free to raise any request for waiver to the Commission.

¹⁹⁶ Petition at 7.

¹⁹⁷ *Id.*

1. NMC Response to Contention 7

NMC argues Petitioners' Contention 7 is inadmissible because it raises an issue beyond the scope of this proceeding and the NRC's jurisdiction, and because it "lacks any basis and fails to establish a genuine dispute concerning a material issue."¹⁹⁸ With respect to their first argument, NMC contends that the issue of whether or not Palisades plant is releasing toxic pollutants into area water sources does not concern the management of aging or time-limited aging analyses as required under 10 C.F.R. Part 54.¹⁹⁹ Additionally, NMC argues that, to the extent the contention seeks to raise an issue under NEPA, it represents a challenge to the scope of environmental review provided under 10 C.F.R. § 51.53(c), as well as to the GEIS and Appendix B to 10 C.F.R. Part 51, in that the allegations relate to generically resolved Category 1 issues determined to be small, including the discharge of chlorine and other biocides, the discharge of metals, and the discharge of sanitary wastes and minor chemical spills.²⁰⁰ Furthermore, NMC asserts, Contention 7 is barred pursuant to section 511 of the Federal Water Pollution Control Act.²⁰¹ According to NMC, the "[National Pollution Discharge Elimination System] Permit for Palisades establishes specific limits for the use of Betz Clam-Trol, and the sufficiency of these limits is not subject to NRC review," because responsibility for the regulation of nonradiological pollutants rests with the EPA.²⁰²

NMC also argues that Petitioners' citation to an Environmental Protection Agency Quarterly Non-Compliance Report does not provide a proper basis for their allegation of "multiple misuses of Betz Clam-Trol" at Palisades.²⁰³ According to NMC, the report indicates noncompliance by the Palisades plant with respect to Betz Clam-Trol in November 2000, but NMC believes that this was due to a data entry error, and in any event the report provides no indication of a current or significant problem.²⁰⁴

2. NRC Staff Response to Contention 7

The Staff argues Contention 7 is inadmissible as it lacks specificity and support, is beyond the scope of this proceeding, is immaterial, and fails to establish that

¹⁹⁸ NMC Answer at 25.

¹⁹⁹ *See id.*

²⁰⁰ *Id.* (citing 10 C.F.R. Part 51, Subpart A, App. B, Table B-1; GEIS § 4.4.2.2 and Table 4.4).

²⁰¹ *Id.* at 26 (citing 33 U.S.C. § 1371(c)(2)).

²⁰² *Id.* at 26 (citing 10 C.F.R. § 51.10(c)).

²⁰³ *Id.* at 26 (quoting Petition at 7).

²⁰⁴ *Id.* at 26 & n.10.

a genuine dispute exists on a material issue of law or fact.²⁰⁵ The Staff asserts that the contention is a challenge to the adequacy of the requirements set out under the Federal Water Pollution Act (the “Clean Water Act”) and the National Pollutant Discharge Elimination System, and, as such, is beyond the jurisdiction of the Board.²⁰⁶ The Staff insists that the issue raised in the contention is “solely within the purview of the Michigan Department of Environmental Quality . . . , which administers the Clean Water Act within the jurisdiction of the State of Michigan.”²⁰⁷ Although an applicant is required by 10 C.F.R. § 51.45(d) to “list all Federal permits, licenses, approvals and other entitlements which must be obtained in connection with the proposed action,” the Staff argues that the adequacy of any such permit is not within the Commission’s jurisdiction.²⁰⁸

3. *Petitioners’ Reply on Contention 7*

Petitioners, in addition to providing additional facts in support of Contention 7, argue in response to the final Staff argument noted above, that the contention should be admitted because it falls under 10 C.F.R. § 54.4(a)(2), as a “nonsafety-related system[], structure[, or] component whose failure could prevent satisfactory accomplishment of any of the functions identified in paragraphs (a)(1)(i), (ii), or (iii) of this section”²⁰⁹ (i.e., to ensure “(i) [t]he integrity of the reactor coolant pressure boundary; (ii) [t]he capability to shut down the reactor and maintain it in a safe shutdown condition; or (iii) [t]he capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures”²¹⁰). According to Petitioners, “[n]onreporting of important, and required, information about toxic releases obscures any meaningful evaluation of the functioning of nonsafety features of Palisades which will be necessary to plant operations during the license extension period.”²¹¹ Petitioners provide additional alleged facts to support this argument in their Reply.

4. *Licensing Board Ruling on Contention 7*

We find this contention, as stated in the initial petition, also to be outside the scope of this license renewal proceeding, and must reject it, based on much the same analysis as stated in our ruling on Contention 2, above. Even considering

²⁰⁵ See Staff Answer at 22.

²⁰⁶ See *id.* (citing *Millstone*, LBP-04-15, 60 NRC at 93).

²⁰⁷ *Id.* at 22.

²⁰⁸ *Id.* at 22-23.

²⁰⁹ Petitioners’ Reply at 43-44 (quoting 10 C.F.R. § 54.4(a)(2)).

²¹⁰ 10 C.F.R. § 54.4(a)(1)(i)-(iii).

²¹¹ Petitioners’ Reply at 44-45.

Petitioners' late-filed argument and assertions at oral argument regarding the clogging of water intakes, these lack sufficient specificity to render the contention admissible. In addition, because this contention is outside the scope of license renewal, we do not consider the late-filed information provided, in keeping with our rulings above. Of course, as indicated above, Petitioners may request action relating to the matters addressed in and regarding Contention 7 in a petition under 10 C.F.R. § 2.206.

E. Contention 8 (Regarding Environmental Justice)

Contention 8 states as follows:

Environmental justice denied by the continuing operations of Palisades.²¹²

Petitioners provide the following basis for this contention:

Palisades nuclear generating station is the source of environmental justice violations. Located within a predominantly African-American and low-income township, Palisades provides woefully inadequate tax revenues to the host community, considering the large adverse impacts and risks the reactor inflicts. Palisades' African-American employees have traditionally been stuck in the dirtiest and most dangerous jobs at the reactor, with little to no prospects for promotion. Some of Palisades' African American employees have also experienced death threats at the work place, including nooses hung in their lockers or in public places to symbolize lynching, an attempt to silence their public statements for workplace justice.

Palisades license extension application also has inadequately addressed the adverse impacts that 20 additional years of operations and waste generation would have on the traditional land uses, spiritual, cultural, and religious practices, and treaty rights of various federally-recognized tribes in the vicinity of the plant and beyond, as well as effects upon non-federally recognized tribes governed by international law. Only three tribes were contacted by the NRC by August 8th, 2005, and invited to participate in the license extension proceedings, which effectively excluded a number of tribes within the 50-mile zone around the reactor. For this reason alone, the August 8, 2005 deadline for requesting a hearing to intervene against the Palisades license extension should be extended, until all tribes with the 50-mile zone and beyond, which have ties to the power plant site and its environs, are contacted.

Also, Palisades' license extension application inadequately addresses the adverse socio-economic impacts of a catastrophic radiation release due to reactor core embrittlement leading to core rupture, as they would be found among the low-income Latin American agricultural workplace of the Palisades area. Too, possible

²¹² Petition at 7.

synergistic effects of such catastrophic radiation releases combined with the toxic chemical exposures these low income Latin-American agricultural workers already suffer on the job have not been evaluated.

Finally, there is an unacceptable lack of Spanish language emergency evacuation instructions and notifications to serve the Spanish speaking Latino population within 50 miles of the Palisades reactor, especially migrant agricultural workers.²¹³

1. NMC Response to Contention 8

NMC challenges this contention as being outside the scope of this proceeding, failing to challenge the application and demonstrate a genuine dispute on a material issue of fact or law, and failing to provide an adequate factual basis to support any dispute with the Application.²¹⁴ At bottom, NMC asserts, none of Petitioners' claims in support of this contention address the "'essence of an environmental justice claim' arising under NEPA in an NRC proceeding, — *i.e.*, '*disproportionately high and adverse human health and environmental effects*' on minority and low-income populations that may be different from the impacts on the general population."²¹⁵ Instead, NMC claims, Petitioners "supply only vague allegations of inadequacies in the Application, without identifying any single specific deficiency" meeting the quoted standard.²¹⁶

NMC points out that the allegations regarding the workplace do not concern disparate environmental impacts.²¹⁷ Regarding the allegations about "traditional land uses, spiritual, cultural, and religious practices and treaty rights," NMC asserts these are vague and identify no deficiency in any specific section of the Application, which in fact does contain several sections relating to cultural issues, including sections on minority populations, the area economic base, social services and public facilities, land use planning, historic and archaeological resources, housing impacts, and offsite land use.²¹⁸ Nor, argues NMC, do Petitioners provide any basis to show that any specific minority population will be subject to disproportionately high and adverse environmental impacts.²¹⁹ In addition, NMC

²¹³ *Id.* at 7-8.

²¹⁴ NMC Answer at 28.

²¹⁵ *Id.* at 28-29 (quoting *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-20, 56 NRC 147, 153 (2002) (quoting in part Exec. Order No. 12,898, 3 C.F.R. 859)) (citing Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 Fed. Reg. 52,040, 52,042, 52,045 (Aug. 24, 2004) [hereinafter NRC EJ Policy Statement]).

²¹⁶ *Id.* at 29.

²¹⁷ *Id.* at 29-30.

²¹⁸ *Id.* at 30 (quoting Petition at 8).

²¹⁹ *Id.*

states that not three but eleven tribes were invited to participate, from as far away as Oklahoma.²²⁰

On the socioeconomic impacts of a catastrophic accident release, NMC asserts that no factual basis has been provided for this and states that, in any event, “societal and economic impacts from severe accidents” have been deemed “small for all plants” in the GEIS and Appendix B to 10 C.F.R. Part 51, Subpart A, such that this cannot be raised in this proceeding absent a waiver.²²¹ NMC also characterizes the allegation regarding Spanish language emergency evacuation instructions as outside the scope of this proceeding as well as vague and unsupported.²²²

2. NRC Staff Response to Contention 8

The Staff also opposes this contention, repeating many of the same arguments provided by NMC, and noting as well that the Commission has stated that only disparate environmental impacts cognizable under NEPA are admissible as environmental justice claims in NRC proceedings.²²³ Staff quotes the Commission’s Policy Statement for the principle that admissible contentions are “those which allege, with the requisite documentary basis and support as required by 10 C.F.R. Part 2, that the proposed action will have *significant adverse* impacts on the physical or human environment that were not considered because the impacts to the community were not adequately evaluated.”²²⁴ Noting the Commission’s ruling in the *PFS* proceeding that NEPA “[does] not call for an investigation into disparate economic benefits as a matter of environmental justice,” Staff states that Petitioners’ claims regarding tax revenues are not admissible.²²⁵ Staff also argues that Petitioners’ claims regarding employment discrimination, notice to tribes, and emergency planning are beyond the scope of this proceeding.²²⁶

Staff does agree that Petitioners’ allegation that the Application has not sufficiently addressed the “adverse socio-economic impacts of a catastrophic radiation release . . . as they would be found among the low-income Latin American agricultural workforce of the Palisades area” would not necessarily be beyond the scope of this proceeding.²²⁷ The contention is not admissible in the

²²⁰ *Id.* at 31.

²²¹ *Id.*

²²² *Id.* at 32.

²²³ Staff Answer at 25-30.

²²⁴ *Id.* at 27 (quoting NRC EJ Policy Statement, 69 Fed. Reg. at 52,047).

²²⁵ *Id.* at 28 (quoting *PFS*, CLI-02-20, 56 NRC at 154; *citing id.* at 159).

²²⁶ *Id.* at 29-30 (citing NRC EJ Policy Statement, 69 Fed. Reg. at 52,047; and, regarding emergency planning, *Turkey Point*, CLI-01-17, 54 NRC at 9; *Millstone*, 60 NRC at 640).

²²⁷ *Id.* at 30 (quoting Petition at 8 (alteration in original)).

Staff's view, however, because, although the contention indicates the presence of a low-income minority population near Palisades, it does not "identify a disproportional environmental impact on this population relative to the general population," and thus "fails to raise a genuine dispute on a material issue of law or fact because it lacks the requisite support."²²⁸

3. *Petitioners' Reply on Contention 8*

In their Reply on this contention Petitioners provide a significant amount of information, but none of it appears to have been unavailable at the time of filing of the original petition, except for a reference to an August 2005 telephone conversation,²²⁹ and an August 2005 newspaper article,²³⁰ and the information relating to these items is not sufficiently specific that we find it would alter our ruling below. Nor do we find any good cause for failure to submit any of the rest of the information that was previously available with the original petition, nor do we find that any of this information would have an impact on our ruling below, in any event, for the reasons therein explained.

4. *Licensing Board Ruling on Contention 8*

In the *Claiborne* proceeding, the Commission held that environmental justice issues are considered in NRC proceedings only to the extent required by NEPA, stating that "NRC's goal is to identify and adequately weigh, or mitigate, effects on low-income and minority communities [by assessing impacts] peculiar to those communities."²³¹ The Commission also, as cited above, in 2004 issued a Policy Statement on Environmental Justice, in which it made the same findings, stating that the "goal of an EJ portion of the NEPA analysis" also includes identifying "significant impacts, if any, that will fall disproportionately on minority and low-income communities."²³² The Commission indicated that "admissible contentions in this area are those which allege, with the requisite documentary basis and support as required by 10 CFR Part 2, that the proposed action will have significant adverse impacts on the physical or human environment that

²²⁸ *Id.*

²²⁹ Petitioners' Reply at 48, 52.

²³⁰ *Id.* at 56.

²³¹ *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 100 (1998).

²³² NRC EJ Policy Statement, 69 Fed. Reg. at 52,048.

were not considered because the impacts to the community were not adequately evaluated.”²³³ There must be some “nexus to the physical environment.”²³⁴

Although some of the issues raised by Petitioners may be addressable elsewhere, we agree that most would not be admissible under the preceding authority. For example, the very serious allegations concerning discrimination against and harassment of African-American employees might fall under Title VI of the Civil Rights Act, but we do not have jurisdiction to hear them. And the Commission has definitively ruled that emergency planning issues are not pertinent in license renewal proceedings, both in the *Turkey Point* proceeding, and more recently in the *Millstone* proceeding.²³⁵

A possible exception is Petitioners’ allegation of “adverse socio-economic impacts of a catastrophic radiation release due to reactor core embrittlement leading to core rupture, as they would be found among the low-income Latin American agricultural workforce of the Palisades area.”²³⁶ However, no facts that would tend to show impacts falling disproportionately on this community have even been alleged.

With regard to Native Americans, we note that, to the extent facts have been alleged, at least one — that only three tribes were contacted — is incorrect, in that it appears to be undisputed that NRC Staff contacted eleven tribes, and during oral argument Petitioners could not contradict this.²³⁷ The remainder of the allegations concerning Native Americans do not appear to be specific or well-supported enough to warrant admitting a contention based on them, and none of the allegations address specific sections of the application in which the applicant goes into some detail about how it intends to address demographic issues including transient, minority, and low-income populations; social services; land use planning; and historic and archaeological resources. The information provided in Petitioners’ Reply and at oral argument on this subject area would not change this sufficiently to alter our ruling, due to the sparsity and somewhat general nature of the information, and due to the continuing lack of any significant reference to the actual Application, which we find to be pertinent here, in part

²³³ *Id.* at 52,047.

²³⁴ *Id.* at 52,044.

²³⁵ *Turkey Point*, CLI-01-17, 54 NRC at 9-10; *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560-61 (2005).

²³⁶ Petition at 8.

²³⁷ Tr. at 291-92; *see also* Staff Answer at 29 n.7. We note Petitioners’ statement through Counsel that information on ADAMS at the time of filing the petition indicated that only three contacts were made, Tr. at 291, which might excuse Petitioners not knowing about the eleven contacts, but which would not change our ruling, in that this fact in itself provides insufficient support for an admissible contention on environmental justice.

because of the extent and detail of the Application on the listed demographic issues.

In the preceding circumstances, and based on the Commission's definition of the environmental justice issue in its Policy Statement and in the *LES* and *PFS* proceedings, we must also reject Contention 8.

VII. CONCLUSION AND ORDER

In conclusion, although Petitioners have established standing to participate in this proceeding, they have shown no good cause not to rule on their contentions at this time, and, their objections and motion having been denied, and not having proffered any admissible contention, they have not established grounds for granting a hearing in this proceeding.

Based, therefore, upon the preceding rulings, findings, and conclusion, it is, this 7th day of March, 2006, ORDERED that this proceeding be TERMINATED.

This Order is subject to appeal to the Commission in accordance with the provisions of 10 C.F.R. § 2.311. Any petitions for review meeting applicable requirements set forth in that section must be filed within ten (10) days of service of this Memorandum and Order.

THE ATOMIC SAFETY AND
LICENSING BOARD

Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

Anthony J. Baratta
ADMINISTRATIVE JUDGE²³⁸

Nicholas Trikouros
ADMINISTRATIVE JUDGE²³⁸

Rockville, Maryland
March 7, 2006²³⁹

²³⁸ Judges Baratta and Trikouros do not join the separate statement of the Board Chairman. They disagree with the premise that an ethical violation has occurred warranting such a statement. In their view, all necessary considerations have been adequately addressed in the decision, which is not furthered by what is set forth in the separate statement.

²³⁹ Copies of this Order were sent this date by Internet e-mail transmission to all participants or counsel for participants.

Additional Statement of Administrative Judge Ann Marshall Young

As the lawyer member of the licensing board, I consider that I have a responsibility to address certain aspects of some matters that are the subject of section IV.B of our Memorandum and Order, primarily relating to ethical duties and standards of conduct for lawyers, which are not covered in our joint Memorandum and Order. Several allegations of ethical violations have been made in recent filings in this proceeding, and the duty of tribunals to whom such allegations are made is a serious one, which warrants close and careful attention. Allegations of this sort raise sensitive issues, concerning lawyers' reputations, identity in the community, and means of making a living. Consideration of such allegations requires balance, which involves neither undue harshness nor avoidance of actual problems.

The duty of trial judges "to deter and correct misconduct of attorneys with respect to their obligations as officers of the court" is related to the need to "support the authority of the [tribunal] and enable the [proceeding to go forward] with dignity."¹ But more importantly, the primary interest involved is the public interest — the basis for and purpose of this duty lies in the need to "safeguard the administration of justice and to protect the public from the misconduct or unfitness of those who are members of the legal profession."² Lawyer judges would thus seem to bear a particular responsibility to fulfill this duty.

In this proceeding, some of the allegations of ethical violations are tied to substantive issues having to do with the admissibility of one of the contentions proffered by Petitioners, and I will in this Statement thus also address to a certain extent some of the legal standards that govern the admissibility of contentions in proceedings such as this one, as well as the relevance of these issues and standards to the ethical matters in question. With regard to all of these interrelated issues, I believe all of the parties, most particularly the Petitioners, all of whose contentions we deny in the foregoing Memorandum and Order, deserve more complete explanation than we have included in our joint Memorandum and Order. For all of the preceding reasons, therefore, I add my own following comments to the decision issued today.

Standards of Professional Conduct for Lawyers

As indicated in our Memorandum and Order, the standards of conduct for lawyers come from codes of ethics, rules of procedure, as well as common law and precedent. Any lawyer must become aware of and comply with all such

¹ *Daniels v. Alander*, 844 A.2d 182, 187-88 (Conn. 2004) (quoting *In re Dobson*, 572 A.2d 328, 334 (Conn. 1990), cert. denied, *Dodson v. Superior Court*, 498 U.S. 896 (1990)).

² *Id.* at 187 (quoting *Burton v. Mottolese*, 835 A.2d 998, 1032 (Conn. 2003)).

standards, and must also become familiar with and competent in the substantive law of any field of law in which the lawyer practices.³ With regard to those standards of conduct most prominently at issue in this proceeding, in addition to the more specific duties noted in our Memorandum and Order, of alerting NRC adjudicatory bodies to information relevant to matters being adjudicated,⁴ assuring that representations made in all pleadings “to the best of [their] knowledge, information and belief . . . are true,”⁵ and *not* knowingly “mak[ing] a false statement of fact or law to a tribunal or fail[ing] to correct a false statement of material fact or law previously made to the tribunal by the lawyer,”⁶ counsel have a broader, more general duty of candor and good faith. This duty, which is related to the duty to update a tribunal “of any development which may conceivably affect the outcome” of litigation,⁷ has been held applicable in administrative adjudication before various federal agencies.⁸ Although counsel also have duties to their clients, e.g., to represent clients zealously, there is a “degree of candor necessary for effective disposition of cases . . . that counsel owes as an officer of the court.”⁹

The Fourth Circuit Court of Appeals has described the purpose and scope of this duty of candor that is placed on lawyers as follows, in the *Shaffer* case:

Our adversary system for the resolution of disputes rests on the unshakable foundation that truth is the object of the system’s process which is designed for the purpose of dispensing justice. However, because no one has an exclusive insight into truth, the process depends on the adversarial presentation of evidence, precedent and custom, and argument to reasoned conclusions — all directed with

³ The first rule of professional conduct requires that “[a] lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation.” Model Rules of Prof’l Conduct R. 1.1 (2003).

⁴ See *Tennessee Valley Authority* (Browns Ferry Nuclear Plant, Units 1, 2, and 3), ALAB-677, 15 NRC 1387, 1394 (1982); see also the Board’s Memorandum and Order, p. 333 n.60.

⁵ 10 C.F.R. § 2.304(c); see also Fed. R. Civ. P. 11.

⁶ Model Rules of Prof’l Conduct R. 3.3 (2003); see also Model Code of Prof’l Responsibility DR 7-102(A)(5) (1980); Ohio Disciplinary Code of Prof’l Responsibility DR 7-102(A)(5) (2003).

⁷ *Board of License Commissioners v. Pastore*, 469 U.S. 238, 240 (1985) (quoting *Fusari v. Steinberg*, 419 U.S. 379, 391 (1975) (Burger, C.J., concurring)); see also *United States v. Shaffer Equipment Co.*, 11 F.3d 450, 457-59 (4th Cir. 1993).

⁸ See, e.g., *RKO General, Inc., v. Federal Communications Commission*, 670 F.2d 215, 232 (D.C. Cir. 1981) (referring to the duty of candor as “an affirmative duty to inform the Commission of the facts it needs in order to fulfill its statutory mandate,” which is “basic, and well known”); *Jaskiewicz v. Mossinghoff*, 822 F.2d 1053, 1057 & n.15 (Fed. Cir. 1987) (referring to the possibility of sanctions against an attorney for breach of a duty of candor and good faith imposed by a rule of the Patent and Trademark Office, or violation of a rule of the ABA Model Code of Professional Responsibility).

⁹ *Cunningham v. Sears, Roebuck & Co.*, 854 F.2d 914, 916 (6th Cir. 1988).

unwavering effort to what, in good faith, is believed to be true on matters material to the disposition. Even the slightest accommodation of deceit or a lack of candor in any material respect quickly erodes the validity of the process. As soon as the process falters in that respect, the people are then justified in abandoning support for the system in favor of one where honesty is preeminent.

While no one would want to disagree with these generalities about the obvious, it is important to reaffirm, on a general basis, the principle that lawyers, who serve as officers of the court, have the first line task of assuring the integrity of the process. Each lawyer undoubtedly has an important duty of confidentiality to his client and must surely advocate his client's position vigorously, but only if it is truth which the client seeks to advance. The system can provide no harbor for clever devices to divert the search, mislead opposing counsel or the court, or cover up that which is necessary for justice in the end. . . .

While Rule 3.3 articulates the duty of candor to the tribunal as a necessary protection of the decision-making process, . . . and Rule 3.4 articulates an analogous duty to opposing lawyers, neither of these rules nor the entire Code of Professional Responsibility displaces the broader general duty of candor and good faith required to protect the integrity of the entire judicial process.¹⁰

Avoidance of evasive responses to a tribunal has been held to fall within a lawyer's duty of candor.¹¹ Moreover, the ethical rule that prohibits the making of false statements, as well as failing to correct such statements, is not limited to affirmative misstatements, but also applies to failures to correct misstatements made in a lawyer's presence by another lawyer.¹² In addition, the use of exaggerated allegations by one attorney against another, or against a tribunal, is strongly disfavored. As the Commission has recently pointed out, "the use of intemperate and disrespectful rhetoric . . . has no place in filings before the Commission or its Boards."¹³

Violation of these standards governing lawyer conduct affects not only the individuals immediately involved, but also is all too related to the decline of professionalism in the law that has been lamented by many in recent years.¹⁴ Fulfilling the "first line task of assuring the integrity of the process" thus demands that those of us in the profession of law attend carefully to any questions

¹⁰ *Shaffer*, 11 F.3d at 457-58. This language, or portions of it, has been quoted by several other courts as being worthy of note. *See, e.g., Ausherman v. Bank of America Corp.*, 212 F. Supp. 2d 435, 442-43 (D. Md. 2002); *In re Bock*, 297 B.R. 22, 31-32 (Bankr. W.D.N.C. 2002).

¹¹ *In re Discipline of Timothy J. Wilka*, 638 N.W.2d 245, 249 (S.D. 2001).

¹² *Daniels v. Alander*, 844 A.2d. at 188.

¹³ *Nuclear Management Co., LLC* (Monticello Nuclear Generating Plant), CLI-06-6, 63 NRC 161, 164 (2006); *see* Staff Response to Motion at 4 n.11.

¹⁴ *See, e.g., Sandra Day O'Connor, Professionalism*, 76 WASH. U. L.Q. 5 (1998), in which Justice O'Connor argues that a decline in professionalism among lawyers is responsible for the diminishing image and reputation of lawyers in society.

of violation of standards, as well as to the purposes and ideals underlying them and informing how they should be applied in individual situations. For it has been in individual acts on the part of individual lawyers that any decline in professionalism has come about, and it is in attention by individual lawyers to specific and concrete circumstances as they arise that it may be reversed. The standards of conduct discussed in our Memorandum and Order, and above, offer specific guidance on how to approach some of the circumstances and allegations that have recently arisen in this proceeding.

Applying these standards in this proceeding in the appropriate balanced and measured manner requires that the starting point be the actual assertions made in the recent pleadings. Recounting portions of these in some detail is necessary in order to address the extent to which the various allegations of inappropriate conduct are well founded, unfounded, or, in some instances, exaggerated and therefore inappropriate themselves.

Parties' Allegations — Petitioners

Petitioners in their January 3, 2006, Response to our December 21, 2005, Order, in which we required a response to Staff Counsel's December 20 e-mail, suggest that the "strong implication [of our Order is] that Petitioners have committed an unspecified wrong."¹⁵ Referring to the "NRC staff's objections to the use of former NRC employees to provide expert information to the ASLB, claiming that they are barred by statute," Petitioners state that this suggests "that the Petitioners could be in trouble both for having had Mr. Basdekas as their expert, and for no longer having him."¹⁶ On the basis of the preceding, Petitioners "object that there is no foundation apparent in the Board's Order for its issuance."¹⁷ In addition, they urge the Board:

¹⁵ Petitioners' Response at 1.

¹⁶ *Id.* at 2. Petitioners' reference is to the Staff's request, made in oral argument, that certain statements of opinion of another expert be redacted from that expert's Declaration in Support of Petitioners' Contention 3, based on such opinion being in violation of 18 U.S.C. § 207. *See* Tr. at 29. The Staff argument, in effect, was that the other expert's opinions contravene portions of section 207 prohibiting any former federal employee from attempting to influence any action relating to any matter in which the person participated while an employee. *See* 18 U.S.C. § 207(a)(1)(B); Staff Response to Motion at 11.

¹⁷ Petitioners' Response at 2. Petitioners appear to consider the matter of their expert to be largely a discovery question, noting that 10 C.F.R. § 2.336(a) requires disclosure of trial experts "within thirty (30) days of the issuance of the order granting a request for hearing or petition to intervene," and arguing that they "have already provided far more information about the status of their expert situation than the rules of the Commission require." *Id.* at 12.

to conclude that this inquiry into the matter of experts needlessly prejudices the Petitioners' pursuit of the embrittlement contention (as, for example, by causing a "chill" which potential experts may want to have no part of); that it is potentially violative of attorney work-product and attorney-client privilege; that it has yielded no information useful to deciding issues on their merits; and that the Order implicates matters that are beyond the purview of the Board to consider insofar as it may have any bearing on the forthcoming ruling on Contention 1.

That Petitioners lost their expert is not a "significant development" (the ASLB's phrase in the December 21 order) which should have caused Petitioners to have to engage, on sudden notification, in several rounds of consultations, research and brief-writing, all of it squarely in the heart of the holiday season.¹⁸

In their later Motion, in addition to reiterating several arguments made in their January 3 Response, Petitioners refer to the NMC and Staff January 9 replies (discussed in the next two sections of this Statement) as including "smears and attacks"; suggest that "the ASLB may be losing control of these proceedings by allowing procedural and ethical irregularities to determine the direction of the decisions to be rendered on Petitioners' contentions," and argue that "as a matter of fairness" they "must be allowed to investigate the Basdekas conversation with NRC Staff attorney Uttal, and to articulate a substantive defense to the spin and innuendo campaign which NMC and the Staff have launched."¹⁹ They suggest that NMC and the Staff "give the lie to their cynical tactics."²⁰

The "procedural and ethical irregularities" to which Petitioners refer are not altogether clear, but are apparently intended to include an allegation that the Staff has attempted to "intimidat[e]" Mr. Basdekas with statements on the extent to which a former NRC employee is prohibited from participating in an NRC proceeding.²¹ It is averred that "Mr. Basdekas was definitely concerned about the threat," and that it "is possible that his concern [about any such legal prohibition] influenced him to contact attorney Uttal."²²

Petitioners further assert that Staff Counsel "had no legitimate business transmitting the information she obtained from Mr. Basdekas to the ASLB," that her e-mail "almost treats the Board as peers," that she should have filed the information in a formal motion but engaged instead in a "stragem of 'trial by ambush,'" and that the Staff "misuses the various explanations given by Petitioners as a means of bullying them for more information."²³ Petitioners allege that Staff Counsel in speaking with Mr. Basdekas violated an ethical rule

¹⁸ *Id.* at 13.

¹⁹ Petitioners' Motion at 2.

²⁰ *Id.*

²¹ *Id.* at 3.

²² *Id.*

²³ *Id.* at 3-4.

prohibiting communication with a party represented by counsel, asserting that Petitioners “have not waived the privileged relationship they enjoy with Mr. Basdekas.”²⁴

Petitioners “seek the board’s guidance,” going on to urge that they believe “this entire issue should be dismissed and all reliance on the information (or alleged information) excluded from the record.”²⁵ “If the ASLB determines to enter some ruling in this case which relies in any way upon the information or unsworn representations proffered by any party,” Petitioners seek a stay of the proceeding “and ask the Board to lay out a course for the adjudication of the expert opinion issue that will allow Petitioners to fairly explore and respond to the proffered ‘evidence.’”²⁶ Petitioners argue that, “[h]aving been portrayed as duplicitous regarding the status of Demetrios Basdekas,” they “must be allowed” to depose Staff Counsel, claiming that such a course is required by “fairness,” particularly if the Board intends to rely in any way on Staff Counsel’s statement in her December 20, 2005, e-mail, which they prefer we would strike from the record, along with the replies of NMC and the NRC Staff.²⁷ Petitioners conclude:

Either the Staff’s and NMC’s gaming of these proceedings must be terminated, or Petitioners must be allowed to counter the pending allegations. As matters stand, the Respondents have unfairly prejudiced the perception of Petitioners’ embrittlement contention, have violated attorney work-product and attorney-client privilege, have not developed any information genuinely useful to deciding the core issues on their merits, and have seriously undermined the procedural rules which govern these proceedings. In fact, this license extension proceeding has been hijacked by what Petitioners submit is baseless consideration of an issue not properly before the Board.

Petitioners urge the Board to enforce the rules fairly as to all parties as it determines what to do next. However hurried a tribunal may be in its efforts to reach the merits of a controversy, the integrity of procedural rules is dependent upon consistent enforcement, because the only fair and reasonable alternative thereto is complete abandonment.²⁸

Attached to Petitioners’ Motion are the declaration of Alice Hirt, the designated member-representative of the Western Michigan Environmental Action Coalition, and a printout of an August 2, 2005, e-mail from Demetrios Basdekas to Ms.

²⁴ *Id.* at 7; *see id.* at 5-7.

²⁵ *Id.* at 7.

²⁶ *Id.*

²⁷ *Id.* at 7; *see id.* at 7-8.

²⁸ *Id.* at 8.

Hirt, Mr. Paul Gunter of NIRS, and Petitioners' Counsel Terry Lodge.²⁹ In her declaration, after referring to the e-mail from Mr. Basdekas and the fact that she attended the November 3-4, 2005, oral argument, Ms. Hirt describes a telephone conversation she had with Mr. Basdekas within the 2 weeks following the oral argument, in which she described to him comments at oral argument that she characterized as being negative toward him.³⁰

²⁹ Mr. Basdekas' e-mail states as follows:

Here are my comments/suggestions on the subject draft contention. My additions/changes to the text you sent me Paul are identified below in **bold, underlined** text. Let me reiterate that, even though I have been helping you with some technical aspects of PTS, I have not made a final decision as to whether I will participate as an expert witness in the Palisades proceedings. I have a lot of things to sort out before I can make such a commitment. You may use my name as you propose in the draft contention, but with the understanding I just reiterated. After the end of this week I will not be available until sometime in September. I believe that the non-DBA nature of vessel rupture is not necessary to be brought at this time. . . .

Here are my contributions to the draft contention:

1. The **operating** license renewal application is untimely and incomplete. At the outset, the Petitioners ~~are~~^{are}™ [sic] wish to raise their concern that the Palisades license renewal application is fundamentally deficient because it does not adequately address the safety issues arising out of the embrittlement of the reactor pressure vessel and **related** Pressure Thermal Shock issues that might reasonably result in the failure of the reactor pressure vessel. The Palisades nuclear power station is identified as prone to the early embrittlement of the reactor pressure vessel, a vital safety component. As identified by the Petitioners ~~are~~^{are}™ [sic] expert opinion of Demetrios Basdekas, retired Nuclear Regulatory Commission **staff member**, the longer **the** Palisades **plant, or any plant** operates, the more embrittled its reactor **vessel** becomes with **attendant** decreasing safety margins in the event of the initiation of emergency **actions, which may be encumbered by equipment failures and/or operator errors, leading to overcooling under pressure, or Pressurized Thermal Shock (PTS) of the reactor vessel.** Therefore, a hearing on the safety impacts of an additional twenty years of operation and embrittlement of the reactor pressure vessel is imperative to protecting the public health and safety affected by this proceeding.

The Nuclear Regulatory Commission is in the process of revising the PTS Rule and we believe that its promulgation should precede any Operating Licence renewal proceedings. Hence, we, thereby, move that the Palisades Operating License renewal proceedings be postponed until such time as the Revised PTS Rule is promulgated and challenges to its validity may be brought forth within the scope of the Palisades Operating License Renewal proceedings.

Petitioners' Motion, Attachment: E-mail transmission from Demetrios Basdekas to Ms. Hirt, Mr. Paul Gunter of NIRS, and Petitioners' Counsel Terry Lodge (Aug. 2, 2005) [hereinafter Basdekas E-mail].

³⁰ Petitioners' Motion, Attachment: Declaration of Alice Hirt (Jan 27, 2006) [hereinafter Hirt Declaration]. In her declaration Ms. Hirt states, in relevant part, as follows:

(Continued)

Parties' Allegations — NMC

NMC argues in its January 9 Reply to Petitioners' Response to our December 21 Order that Petitioners "had a duty to apprise the Board of significant developments affecting the proceeding," particularly in light of the early date on which Mr. Basdekas declined to be their expert, and suggests that Petitioners in their Response "inappropriately denigrate[] both the Board and the Staff."³¹ In addition, NMC makes various arguments to the effect that Petitioners' suggestion that Mr. Basdekas' decision not to serve as their expert was "immaterial and irrelevant," is "erroneous,"³² stating that Basdekas' decision is material and relevant under the requirement of 10 C.F.R. § 2.309(f)(1)(v) for a "concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue *and on which the petitioner intends to rely at hearing*. . . ."³³ NMC asserts that Petitioners' provision of new statements by Basdekas, to "backfill the loss of their expert," is too late and should not be considered by us.³⁴ Finally, NMC argues that, "[n]ow lacking even [the] minimal support [of Mr. Basdekas as their expert], the contention is clearly inadmissible"³⁵

In its response to Petitioners' January 27 Motion, NMC asserts that Petitioners' allegation that it had "smeared" Petitioners is unfounded, as it provided precedent for its prior arguments. NMC also reiterates the legal support for the duty to alert NRC adjudicatory bodies to new relevant and material information, again asserting that the issue of whether Petitioners' Contention 1 is supported by expert opinion is a matter properly before the Board under 10 C.F.R. § 2.309(f)(1)(v); argues that Petitioners' allegations of improper conduct on the part of the NRC Staff are baseless, and that their "attack" on Staff Counsel is "frivolous" and

Although Mr. Basdekas had long since resigned as an expert witness for the Petitioners-Intervenors by November 2005, sometime within the 14 days after the November prehearing conference, I spoke with him by telephone. I told him that his name had come up in a not-too-positive context, referring to the record comments by NRC Staff Attorney Uttal that she had never heard of Mr. Basdekas, who is a former NRC staff engineer.

I further described to Mr. Basdekas the NRC Staff's objection to the affidavit testimony of Dr. Ross Landsman which we Petitioners had proffered in support of one of our contentions. I explained to Mr. Basdekas that the NRC Staff counsel had brought up at the hearing 18 U.S.C. Sect. 207, a federal law that restricts former federal workers from providing expert testimony before courts and other tribunals under some circumstances. From this point in conversation and in later conversations I had with him, Mr. Baskedas become [*sic*] solely focused about how soon he could see those pages of the November 3-4 transcript in which his name was mentioned.

³¹ NMC Reply at 2.

³² *Id.* at 3.

³³ *Id.*

³⁴ *Id.* at 4.

³⁵ *Id.*

provides no basis to depose counsel; and makes further legal arguments against the actions sought in Petitioners' Motion.³⁶ NMC concludes:

Clearly, whether Petitioners contention is supported by any expert opinion is a matter properly considered by the Board (*see* 10 C.F.R. § 2.309(f)(v)), and the only irregularity in this proceeding has been Petitioners' failure to inform the Board that Mr. Basdekas had declined to serve as Petitioners' expert. It is unfortunate that, rather than recognizing they should have informed the Board of this information, Petitioners instead make silly claims and requests that would only disrupt this proceeding further. Rather than brooking such disruption, the Board should deny Petitioners' Motion and, in the interest of maintaining a fair and orderly proceeding, proceed with the prompt issuance of its decision ruling on Petitioners' proposed contentions.³⁷

Parties' Allegations — NRC Staff

In addition to the arguments described in our Memorandum and Order, the Staff in its January 9 Reply to Petitioners' January 3 Response challenges the accuracy of some of Petitioners' statements about Mr. Basdekas having "consulted extensively" with them,³⁸ and submits additional arguments on why Contention 1 should be ruled inadmissible, based on the new information provided in Petitioners' Response.³⁹ Among other things, the Staff asserts that any argument by Petitioners that the contention was "merely inartfully drafted and that an expert, one Mr. Basdekas, has site specific knowledge that told him that the embrittlement at Palisades is of a special nature," should not be considered by us.⁴⁰

In its Response to Petitioners' Motion the Staff suggests that Petitioners' "baseless and frivolous attacks on Staff counsel should not be permitted by the Board."⁴¹ The Staff asserts that Counsel's communication with Mr. Basdekas was proper in that Mr. Basdekas was not a represented person, not covered under ABA Model Rule 4.2, and that no other possible ethical problems existed with such communication — Mr. Basdekas' status with Petitioners was not confidential, Staff argues, and, given the requirements of 10 C.F.R. § 2.309(f)(v) for expert opinion to support contentions, his opinion is relevant to the subject of our

³⁶ NMC Response to Motion at 1-3.

³⁷ *Id.* at 3-4.

³⁸ Staff Reply at 5 & n.4.

³⁹ *See id.* at 5-15.

⁴⁰ *Id.* at 9; *see id.* at 12-13.

⁴¹ Staff Response to Motion at 4 n.11 (quoting *Monticello*, CLI-06-6, 63 NRC at 164 n.18, in which the Commission noted that "the use of intemperate and disrespectful rhetoric . . . has no place in filings before the Commission or its Boards").

decision on Contention 1.⁴² Further, Staff argues, while its Counsel fulfilled an ethical obligation to provide the notification in question to the Board and parties, Petitioners' Counsel misrepresented the status of Petitioners' purported expert during oral argument, in violation of ABA Model Rule 3.3, which "forbids lawyers from 'knowingly mak[ing] a false statement of fact or law to a tribunal or fail[ing] to correct a false statement of material fact or law previously made to the tribunal by the lawyer.'" ⁴³

Nor, according to the Staff, did its Counsel misrepresent any of Mr. Basdekas' statements; instead, Staff contends, Petitioners actually confirm Staff Counsel's statements in her e-mail, through provision of Mr. Basdekas' own earlier e-mail to Petitioners, in which he specifically indicated that his statement applied to all nuclear plants, not just Palisades.⁴⁴ Moreover, Petitioners' statement in their Motion that they "used Basdekas' version of the embrittlement contention — which adds a specific reference to Palisades — precisely as Mr. Basdekas had written it,"⁴⁵ is, according to the Staff, "yet another misrepresentation to the Board by Petitioners' counsel."⁴⁶ The Staff also disputes Petitioners' allegation of intimidation, noting that Mr. Basdekas had declined to be Petitioners' expert 4 months prior to contacting Staff Counsel,⁴⁷ and that it was Mr. Basdekas who initiated the contact with Staff Counsel.⁴⁸

Duties of Counsel in this Proceeding

Relevance of Information on Expert's Availability

As should be obvious from the preceding summaries of the parties' recent filings, much of the argument relating to Mr. Basdekas, and whether it should have been disclosed that he had in August 2005 declined to be Petitioners' expert on embrittlement, centers on the relevance of his availability for any hearing to any of the rulings the Board is required to make in this proceeding. For this reason, before addressing directly how the various duties of lawyers specifically come into play in the proceeding, I will focus on this issue of relevance to a somewhat

⁴² *Id.* at 5-7 (citing ABA Comm. on Ethics and Prof'l Responsibility, Formal Op. 93-378 (1993) (discussing the ethics consequences of *ex parte* contacts with expert witnesses for other parties).

⁴³ *Id.* at 8-9 (citing Model Rules of Prof'l Conduct R.3.3(a)(1); *Browns Ferry*, ALAB-677, 15 NRC at 1394; Tr. at 48); *see id.* at 7-9.

⁴⁴ *Id.* at 10.

⁴⁵ Petitioners' Motion at 5.

⁴⁶ Staff Response to Motion at 10.

⁴⁷ *Id.* at 11-12.

⁴⁸ *Id.* at 12-13.

greater extent and in a bit more detail than we provide in our Memorandum and Order.

The issue of relevance arose with Mr. Basdekas' December 20, 2005, call to Staff Counsel, and Counsel's subsequent e-mail to the Board and parties.⁴⁹ The Board then issued the December 21, 2005, Order, noting the contents of the e-mail, and that "[i]n view of this very significant development . . . the Board would like a response from Petitioners"; permitting replies by the Staff and NMC; and setting deadlines for these.⁵⁰ The need for a response arose out of the unusual nature of the information conveyed in the e-mail, namely, that the person identified as the "Petitioners' expert on embrittlement" was said to have telephoned Staff Counsel and made the statements Counsel recounted, a somewhat remarkable circumstance in itself; as well as out of the possibility that this information, if true, might arguably, or "conceivably," be relevant to Petitioners' ability to litigate effectively the issues put forth in Contention 1 and its proffered basis, if admitted.

We note in our Memorandum that certain verbal exchanges between myself and both Petitioners' Counsel and Staff Counsel during oral argument indicated at that time that it was "conceivable," at least, that Mr. Basdekas' actual availability for any hearing that might be granted in the proceeding on Contention 1 could have been relevant to a determination on the admissibility of Contention 1.⁵¹ Additional clarification on this issue may be helpful.

Concern about the ability of petitioners to effectively litigate legally appropriate issues is part of what underlies the contention admissibility standards. As the Commission explained in the Oconee case,

By raising the admission standards for contentions, the Commission intended to obviate serious hearing delays caused in the past by poorly defined or supported contentions.

. . . .

⁴⁹ See the Board's Memorandum and Order, p. 330 n.36.

⁵⁰ 12/21/05 Order and Revised Notice at 1. As to Petitioners' concern that the "strong implication" of our Order was "that Petitioners ha[d] committed an unspecified wrong," Petitioners' Response at 1, until we were informed by Petitioners themselves, in their January 3, 2006, Response, that their "tentative" expert had declined to assist them on August 22, 2005 (only 2 weeks after they filed their Petition), we were actually quite open, in issuing our December 21, 2005, Order, to any explanation that might indicate that Staff Counsel had misunderstood the situation or, for example, that Petitioners had indeed lost their expert but that this was recent, unexpected, unavoidable, and/or involved other circumstances. In any event, we ultimately do not in our consideration of Contention 1 take into account the actual failure to provide the information prior to responding to our December Order, as this circumstance, although questionable from the standpoint of Counsel's duties as a lawyer (as I discuss herein), is not relevant to the admissibility of the contention.

⁵¹ See Memorandum and Order, p. 334 & n.66.

. . . Admitted intervenors often had negligible knowledge of nuclear power issues . . . Congress therefore called upon the Commission to make “fundamental changes” in its public hearing process to ensure that “hearings serve the purpose for which they are intended: to adjudicate genuine, substantive safety and environmental issues placed in contention by *qualified intervenors*.” H.R. Rep. No. 97-177, at 151 (1981).⁵²

Notably, the Commission in discussing the contention admissibility standards also uses language suggesting that whether petitioners have “expert assistance” can be related to how “qualified” petitioners may be to effectively litigate issues put forth in contentions, and whether contentions should therefore be admitted.⁵³

Petitioners in NRC proceedings show that they are “qualified” to litigate their contentions in a hearing through the drafting of their contentions and bases therefor, which may include demonstration that they have expert assistance to address the issues they raise — sometimes in the form of an affidavit or written statement of the expert’s opinion, although this is not required.⁵⁴ The importance of such demonstration of expert assistance in rulings on the admissibility of contentions depends on how well a contention and its basis, apart from such demonstration, meet the relatively strict requirements of 10 C.F.R. § 2.309(f)(1), as interpreted through a fairly extensive body of case law.

Of course, given the nature of law and the possibility of informed disagreement on most legal issues, the admissibility requirements of 10 C.F.R. § 2.309(f)(1) and case law precedent interpreting them may not always lead ineluctably to completely clear-cut and completely agreed-upon rulings on admissibility of contentions — particularly when read in conjunction with relevant rules and case law on substantive and technical matters — and the precise ways in which expert

⁵² *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999) (emphasis added). The Commission also stated as follows:

This is not to say that our contention rule should be turned into a “fortress to deny intervention.” [*Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 21 (1974)]. The Commission and its boards regularly continue to admit for litigation and hearing contentions that are material and supported by reasonably specific factual and legal allegations. *See, e.g.*, [*North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219-21 (1999)]; [*Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, *aff’d*, CLI-98-13, 48 NRC 26 (1998)].

Id. at 335.

⁵³ *See id.* at 342; *see also* section V.A of the Board’s Memorandum and Order, pp. 339-40, in our discussion of the requirements of 10 C.F.R. § 2.309(f)(1)(v).

⁵⁴ *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 249 (1996) (citing *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 118 (1995)).

support may play into such rulings can vary. The following three hypothetical situations illustrate this.

In some situations, the support offered for a contention may be clear on its face, and the substance of such support specified and explained to such an extent that it clearly constitutes information demonstrating a genuine dispute on an in-scope material issue and otherwise meeting the requirements of 10 C.F.R. § 2.309(f)(1). In such a situation, if part of the support offered is the clear statement of an expert that *on its face* is sufficient, taken in combination with whatever other support is offered, to satisfy the contention admissibility requirements, then the actual availability of an expert named in the contention's basis will not be relevant to the admissibility of the contention. Once the contention is admitted, new expert support for a hearing on the issues raised in the contention may be obtained if the original expert is no longer available for any reason.

In other cases the support for a contention may be so deficient on its face, in putting forth a genuine dispute on an in-scope material issue or otherwise meeting the requirements of section 2.309(f)(1), that it must clearly be denied. In this situation, the availability of any expert cited would also be irrelevant to the admissibility of the contention, because even with the expert support offered the contention is clearly inadmissible.

In some cases, however, notwithstanding that the support for a contention is weak and that the contention might not meet every "technicalit[y]"⁵⁵ of the specific criteria of section 2.309(f)(1), it may appear that a valid and significant issue has been raised, with "reasonably specific factual and legal allegations"⁵⁶ and sufficient support that "further inquiry"⁵⁷ might be warranted — possibly because a petitioner is found to be "qualified"⁵⁸ and able to litigate effectively the significant issue raised, *by virtue of* expert assistance⁵⁹ that may not be clearly stated in the form of an opinion on a pertinent subject but that is represented in the basis of the contention to be relied upon for, and therefore *available* at, any hearing on the contention. In this example, the actual availability or unavailability of such an expert to assist in litigating a contention might result in a "scales of justice," otherwise evenly balanced, tipping in one or the other direction on the issue of the admissibility of the contention.

⁵⁵ *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 649 (1979); *see also* Memorandum and Order, section V.A, p. 340.

⁵⁶ *Oconee*, CLI-99-11, 49 NRC at 335.

⁵⁷ *Yankee*, CLI-96-7, 43 NRC at 249 (citing *Georgia Tech*, CLI-95-12, 42 NRC at 118); *Connecticut Bankers Ass'n v. Board of Governors*, 627 F.2d 245, 251 (D.C. Cir. 1980); *see also* Memorandum and Order, section V.A, p. 342.

⁵⁸ *Oconee*, CLI-99-11, 49 NRC at 334.

⁵⁹ *See id.* at 342; *see also* Memorandum and Order, section V.A, p. 339.

Even though there may be differing views on which of these three “types” any given contention falls within, the third example demonstrates how information about the actual availability of an expert can “conceivably affect” the outcome of a ruling on the admission of a contention and thereby the outcome of a proceeding, and the resulting relevance of the information recounted in Staff Counsel’s December 20 e-mail (and need for a response from Petitioners and appropriate argument by all parties on it). I provide this explanation not to suggest how any such information has or has not played into any ruling in this case, but solely to illustrate how the availability or unavailability of an expert “may conceivably affect the outcome” of an NRC adjudicatory proceeding with regard to a particular contention and its admissibility under the standards of 10 C.F.R. § 2.309(f)(1).⁶⁰

Counsel’s Duty To Disclose

The preceding demonstrates the appropriateness of Staff Counsel’s December 20, 2005, notification.⁶¹ As to Petitioners’ Counsel, a duty to disclose this information certainly arose during oral argument, after it became clear that one Board member considered the question, whether the Petitioners’ cited expert would appear at any hearing to assist Petitioners in litigating Contention 1, to be at least arguably, or “conceivably,”⁶² relevant to the issue of whether Petitioners had demonstrated sufficient basis for Contention 1 to warrant “further inquiry.”⁶³

More specifically, at one point, in questioning Petitioners’ Counsel, I (the Board member in question) stated, “Now, you have identified an expert who is retired from the NRC,” and then stated shortly thereafter, “if we were to admit this contention . . . [y]ou have an expert, the expert can talk about what happened at the Palisades plant. . . . Okay. What’s the impact of that?”⁶⁴ At each of the

⁶⁰ *Pastore*, 469 U.S. at 240; *Shaffer*, 11 F.3d at 459.

⁶¹ As to the form of the notification being in an e-mail rather than a formal motion or other pleading, as stated in the Board’s Memorandum and Order, at p. 334, the information was provided to all parties and placed in the record, and no relief was being sought. Moreover, one of the benefits often associated with administrative adjudication is that, when appropriate, allowing for greater informality can both promote greater efficiency and reduce costs for parties. Although Petitioners raise a question suggesting some appearance of familiarity between Staff Counsel and the Board, an appearance that should of course always be avoided, in this instance the information was imparted to all, there is nothing inherent in it suggesting anything inappropriate, and the Board did not take it as such. Informality should not in any event be equated with familiarity, and if the dignity of the proceeding is not compromised, then there would seem to be nothing improper in an e-mail communication on subject matter not requiring a formal motion or other pleading.

⁶² See *supra* note 7.

⁶³ See *supra* note 57.

⁶⁴ Tr. at 47-48; see Memorandum and Order, p. 334 n.66.

points marked by the ellipses, Petitioners' Counsel responded, "Right." Later, in questioning Staff counsel, I stated:

There's also case law that says the contention rule should not be used [as] a fortress to deny intervention[,] that what you need is enough to indicate that further inquiry is appropriate. . . . Basically something to indicate that the petitioners are qualified, able to litigate the issue that they raise. So what we have here is [—] we have an allegation that the application is incomplete for failure to address the continuing crisis of embrittlement[,] supported by this factual allegation about early embrittlement and the identification of an expert who used to work with the NRC. So on the face of that it would seem that that provides something to indicate that further inquiry might be appropriate.⁶⁵

Counsel thus had two direct opportunities to correct the obvious misimpression, initially created by the reference to "Petitioners' expert on embrittlement" in the basis for Contention 1 in the Petition and further fostered by Counsel's affirmative response in oral argument, that Mr. Basdekas, formerly an NRC employee, would assist Petitioners at any hearing on Contention 1 — in a context in which this was of significance to a Board member in deliberating whether to admit Contention 1. And Counsel had further opportunity to correct his previous affirmative statement, at any point during the remainder of oral argument, which continued the same day the quoted statements were made, and the following morning. Counsel's failure to disclose the true situation with regard to Mr. Basdekas is questionable at the very least.

Giving Counsel the benefit of every doubt, however, it appears possible, based on an overall picture of his conduct to date in this proceeding as the Petitioners' attorney, that some level of confusion and disorganization on Counsel's part may have played some role in his failure to disclose the information in question.⁶⁶ I would therefore not find that Counsel's conduct in this proceeding has risen to a level that would require any discrete action regarding it. I do, however, in view of the entire situation as it has evolved with regard to Mr. Basdekas, feel a responsibility to remove any confusion about Counsel's (1) duty to update any tribunal, including this one, "of any development which may conceivably affect the outcome" of any litigation⁶⁷; (2) ethical responsibility *not* to knowingly "make a false statement of fact or law to a tribunal or fail to correct a [previous] false statement"⁶⁸; and (3) even broader "duty of candor" as an "officer of the

⁶⁵ Tr. at 149-50.

⁶⁶ I will assume that the failure was not related to the sort of "clever device[] . . . to mislead" noted by the *Shaffer* Court. *Shaffer*, 11 F.3d at 458.

⁶⁷ See *supra* note 7.

⁶⁸ See *supra* note 6.

court.’’⁶⁹ And Counsel has a responsibility to familiarize himself with, and pay due attention to, these duties, compliance with any of which would have led him to make the appropriate disclosure, in the words of Justice O’Connor, ‘‘honestly and directly.’’⁷⁰

Counsel’s Duties Related to Contention Pleading

Given the relationship of the situation at hand as it has developed in recent months to the initial pleading in this proceeding, some attention to the issue of contention pleading in NRC adjudications is also in order. As should be clear at this point, the contention admission stage of an NRC proceeding is in many cases the most critical stage, in that it is generally at this stage that it is determined whether a hearing will be held to litigate issues raised by petitioners.⁷¹ For this reason, how well contentions and their bases are drafted, and how well the contentions are supported, in the context of the strict contention admissibility requirements, is of great importance for petitioners wanting a full hearing on their various contentions. Attention to detail — in becoming familiar with relevant regulatory requirements and case law, and in drafting the contentions and bases — is crucial.

It is also important to note, with regard to section 2.309(f)(1)(iii) of the contention admissibility requirements, that the scope of an admissible contention in a license renewal proceeding will be narrower than in some other types of proceedings. For example, the Commission in the *Turkey Point* case, quoting from its earlier rulemaking on license renewal, stated that it

cannot conclude that its regulation of operating reactors is ‘‘perfect’’ and cannot be improved, that all safety issues applicable to all plants have been resolved, or that all plants have been and at all times in the future will operate in perfect compliance with all NRC requirements. However, based upon its review of the regulatory programs in this rulemaking, the Commission does conclude that (a) its program of oversight is sufficiently broad and rigorous to establish that the added discipline of a formal license renewal review against the full range of current safety requirements would not add significantly to safety, and (b) such a review is not needed to ensure that continued operation during the period of extended operation is not inimical to the public health and safety.⁷²

⁶⁹ See *supra* notes 9, 10.

⁷⁰ O’Connor, *supra* note 14, at 8.

⁷¹ Of course, in some proceedings, such as enforcement cases, a party against whom such a case is brought has a *right* to a hearing. See 10 C.F.R. § 2.202(a)(3), (c).

⁷² *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 10 (2001) (quoting Final Rule: ‘‘Nuclear Power Plant License Renewal,’’ 56 Fed. Reg. 64,943, 64,945 (Dec. 13, 1991)).

As discussed in section V.B of our Memorandum and Order, the Commission has spoken to the scope of license renewal proceedings both in regulations and case law, which any petitioner seeking a hearing in a license renewal proceeding must be prepared to address.⁷³ The interrelationships between the various license renewal rules is relatively complex, and the relationship between these rules, the contention admissibility rules, and other rules governing particular technical issues relating to nuclear power plants can also be complex.⁷⁴ Thus it is particularly important in license renewal proceedings that petitioners and their counsel become familiar with not only the regulations and case law on contention admissibility, but also those on license renewal and the scope of these proceedings.

⁷³ A reasonable starting point in the license renewal regulations would be section 54.29, mentioned in our ruling on Contention 1 in the Board's Memorandum and Order. *See* Memorandum and Order, pp. 343, 353. Section 54.29 addresses the "[s]tandards for issuance of a renewed license," stating that:

A renewed license may be issued by the Commission up to the full term authorized by § 54.31 if the Commission finds that:

(a) Actions have been identified and have been or will be taken with respect to the matters identified in paragraphs (a)(1) and (a)(2) of this section, such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the [current licensing basis, or CLB], and that any changes made to the plant's CLB in order to comply with this paragraph are in accord with the Act and the Commission's regulations. These matters are:

(1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under § 54.21(a)(1); and

(2) time-limited aging analyses that have been identified to require review under § 54.21(c).

(b) Any applicable requirements of subpart A of 10 CFR part 51 have been satisfied.

(c) Any matters raised under § 2.335 have been addressed.

Any petitioner would also need to be familiar with other parts of Part 54, particularly those noted in our Memorandum and Order in Section V.B, as well as Part 51, and relevant case law pertaining to both sections. *See* Memorandum and Order, p. 343 n.103.

⁷⁴ One such relationship that arose during oral argument was the relationship between 10 C.F.R. § 50.61, having to do with embrittlement, and Part 54. As Staff Counsel observed, a contention "could be formulated that would say compliance with 50.61 is not enough to meet part 54." Tr. at 138. There was various discussion regarding section 50.61 during oral argument, including, for example, on NMC's past determinations that it would not be "reasonably practicable" to install neutron shields to reduce fluence, as provided in section 50.61(b)(3), and whether cost effectiveness should play into such determinations, *see, e.g.*, Tr. at 58-65, 154-56, 172-73, 259-61; and on NMC's plan to manage the effects of aging and embrittlement by submitting information to the NRC in compliance with section 50.61(b)(7) at least 3 years before it is projected to exceed the PTS criterion in 2014, which would also be 3 years into the sought 20-year term, *see, e.g.*, Tr. at 36, 53-57, 65-69, 82-83, 91-92, 94-96. Staff Counsel also, of course, argued that this contention does not really assert that compliance with section 50.61 is "not enough to meet part 54," stating, "that's not the contention here." Tr. at 138. And indeed, there is no reference at all to section 50.61 in the contention.

It appears this was not done as effectively as it might have been by Petitioners and their Counsel in this proceeding, and Counsel, presumed to have the knowledge, training, and skill to deal with such issues, bears the responsibility for this. Yet it appears, considering Counsel's statement at oral argument that the contention drafting was done in a "committee type fashion,"⁷⁵ that some or all of the drafters were nonattorneys. Thus it is not surprising that it appears quite possible that there was some confusion on the part of the drafters of Contention 1,⁷⁶ both with regard to Mr. Basdekas' status as either "Petitioners' expert on embrittlement"⁷⁷ or only their "tentative"⁷⁸ expert at the time of submission of the Petition, and with regard to his actual statement, which in his e-mail but not the contention contained the words "or any plant."⁷⁹ As to the latter, this makes no difference in the outcome on Contention 1, as it has in any event been clear from the outset that the only statement specifically attributed to Mr. Basdekas indeed applies to any nuclear power plant. But these examples do suggest an unfortunate lack of attention to detail on the part of the drafters.⁸⁰

Regardless of who drafted the contention, however, Counsel has, as noted above, an obligation to assure that the representations made in all pleadings "to the best of his or her knowledge, information and belief . . . are true."⁸¹ He also has an obligation to serve his clients with the "thoroughness and preparation reasonably necessary for the representation" he undertakes.⁸² Counsel is held to a higher standard of conduct based upon his professional status as an attorney, and any lawyer should always bear in mind that any violation of any ethical standard or other requirement placed on him or her as an officer of the court not only reflects badly on the lawyer, but also ill-serves the lawyer's client — among other ways, by virtue of the fact that in many instances inadequacies on the part of counsel will necessarily play into the legal rulings a tribunal must, as part of its duties, make.

I recognize that the June 2005 *Federal Register* Notice regarding the application herein at issue might itself be viewed as being somewhat confusing in its recitation at one point of some of the contention-pleading requirements but not

⁷⁵ Tr. at 34; *see* Tr. at 178.

⁷⁶ I am mindful of Counsel's representations in oral argument that the drafting of Contention 1 and other contentions was "essentially done and accomplished in a committee type of fashion," Tr. at 34, "involving many many dozens of volunteer hours . . ." Tr. at 178.

⁷⁷ Petition at 2.

⁷⁸ Petitioners' Response at 3; *see* Basdekas E-mail, *supra* note 29.

⁷⁹ Basdekas E-mail.

⁸⁰ Additional attention to detail would have been appropriate, as indicated in our Memorandum and Order, with regard to various of the contention admissibility requirements of section 2.309(f)(1).

⁸¹ 10 C.F.R. § 2.304(c); *see also* Fed. R. Civ. P. 11.

⁸² Model Rules of Prof'l Conduct R. 1.1; *see supra* note 3.

others.⁸³ A citation to the correct rules is found in the notice, however,⁸⁴ and Counsel should at a minimum have consulted these rules.⁸⁵ Close attention to them would have placed Petitioners, through their Counsel, with whatever expert assistance they had, in a much better position to draft admissible contentions.⁸⁶

Counsel's Duties Regarding Tone of Discourse

Counsel would also do well to bear in mind the general inappropriateness of “intemperate and disrespectful rhetoric,”⁸⁷ as well as its ineffectiveness in representing a client’s position. Of course, in the “heat of battle” in litigation, strong feelings may arise, which may sometimes be accompanied by emphatic language, and it would be inappropriate to find all such language to be intemperate or disrespectful. The question is one of limits and boundaries of appropriateness. When I consider the parties’ pleadings that have been filed since our December 21 Order, I view them from this perspective.

In such light, I do not find NMC’s or the Staff’s filings to cross any limit or boundary of “intemperate or disrespectful” language. Nor do I find anything in either NMC and the Staff’s January 9 replies that would constitute a “smear” or “attack,” as alleged by Petitioners through their Counsel,⁸⁸ and to the contrary find the allegation to be exaggerated, at least. I do find NMC’s references to “silly claims and requests”⁸⁹ to be somewhat condescending, and not the most desirable language to use in a legal setting. The reference is unnecessary, and unnecessarily

⁸³ See 70 Fed. Reg. at 33,534. For example, no mention is made of the requirement in 10 C.F.R. § 2.309(f)(1)(vi) to refer to specific sections of the application.

⁸⁴ See *id.* We also note that, two paragraphs above the arguably confusing language, the following statements are found:

Interested persons should consult a current copy of *10 CFR 2.309*, which is available at the Commission’s Public Document Room (PDR), . . . and is accessible from the Agencywide Documents Access and Management System’s (ADAMS) Public Electronic Reading Room on the Internet at <http://www.nrc.gov/reading-rm/adams/html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC’s PDR reference staff at 1-800-397-4209, or by email at pdr@nrc.gov.

Id.

⁸⁵ For example, had he done so, he would have known of the requirement for references to sections of the application. See *supra* note 83.

⁸⁶ I note Counsel’s statement of “some misunderstanding of exactly what the expectations were,” made in the context of discussing the drafting of the contentions. Tr. at 178. His candor in this instance is noted, and it is recognized that his representation of Petitioners may be in part in the nature of public service, depending on his fee arrangements with them. But this, if true, would still not in any way diminish his duty of competent representation of his clients. See *supra* note 3.

⁸⁷ *Monticello*, CLI-06-6, 63 NRC at 164 n.18.

⁸⁸ Petitioners’ Motion at 2.

⁸⁹ NMC Response to Motion at 4.

likely to heighten the level of rancor in any highly contested dispute; and while it might be stated verbally in a manner that would offend less, in writing it is less acceptable. But this reference is really somewhat tame in comparison to some of the exaggerated allegations used by Petitioners' Counsel, particularly in their most recent filing.

A review of Petitioners' January 27 Motion reveals a number of examples that are at least immoderate in tone and often are mere allegations with no supporting examples or authority provided — for example, references to a “spin and innuendo campaign,”⁹⁰ “bullying,”⁹¹ and the proceeding being “hijacked by . . . baseless consideration of an issue not properly before the Board,”⁹² just to name a few. Whatever the reasons for these and similar other expressions, the general tenor of them leaves something to be desired, and Counsel should be aware, not only of the negative impact and ineffectiveness of such an approach, but also of his duty as an officer of the court to conduct himself with more dignity, befitting a member of the legal profession.

Allegations of Intimidation

Regarding alleged “intimidation” of Mr. Basdekas by Staff Counsel,⁹³ after carefully considering all of the information relating to his call to Staff Counsel and the surrounding circumstances, I find no indication of any intimidation. Counsel appropriately saw it as her obligation to raise the issue of the compliance of another expert relied on by Petitioners with the requirements of 18 U.S.C. § 207, and, as Staff points out, the Staff never objected to the testimony of Mr. Basdekas, because his testimony would not have fallen under the restrictions that assertedly applied to the other expert.⁹⁴ Although it appears Mr. Basdekas was concerned as a result of Ms. Hirt's call to him about matters discussed at oral argument,⁹⁵ his own call to Staff Counsel (likely to set the record straight regarding his involvement with Petitioners) indicates he was not intimidated.

Nor should any of the circumstances relating to Mr. Basdekas, and any disclosures that were or should have been made regarding his availability, in any way discourage or “chill” any participation by any expert in any proceeding.

⁹⁰ Petitioners' Motion at 2.

⁹¹ *Id.* at 4.

⁹² *Id.* at 8. I would note that in the paragraph following this last reference, Petitioners through their Counsel urge that “the integrity of procedural rules is dependent upon consistent enforcement.” *Id.* I agree with this statement, and hope that my explanation herein provides a clearer view of what this involves.

⁹³ Petitioners' Motion at 3.

⁹⁴ *See* Staff Response to Motion at 11.

⁹⁵ *See* Petitioners' Motion at 3; *id.*, Hirt Declaration.

Without doubt, it may be difficult for some petitioners to find experts to assist them in challenging proposed actions regarding nuclear power plants. And sometimes experts not mentioned in contentions may be called as witnesses in hearings. Assuming no relevant legal prohibitions, the participation of experts to assist petitioners, both at the contention stage of proceedings through the provision of statements and opinions as required by 10 C.F.R. § 2.309(f)(1)(v), as well as at the hearing stage through consultation and testimony in the litigation of admitted contentions, should be encouraged, in order to promote more effective litigation of real and significant issues in adjudicatory proceedings.

Final Thoughts

In closing, I would note that this Licensing Board, like all others, is bound by existing law and rules, and indeed our integrity and independence as judges are grounded in our following such law and rules, applying them in all our rulings, and not being swayed by any other influence, from whatever source. All parties, including petitioners, are also bound by such law, and any party wishing to prevail in an NRC adjudication proceeding can do so only through compliance with existing law and rules, including the strict requirements of the contention admissibility rules and all other relevant law. I appreciate that this may be difficult for some petitioners, and hope that this Statement, taken together with our summary of the law on the admissibility of contentions in section V.A of our Memorandum and Order, makes clearer the steps that must be followed by petitioners and their counsel in NRC adjudicatory proceedings. To the extent one disagrees with existing law, including regulations governing matters at issue in this proceeding, this is best addressed through means other than adjudication; for example, through a petition for rulemaking or a request for waiver of a rule under 10 C.F.R. § 2.335(b).

Finally, I would point out two additional items of which Petitioners may wish to take note. First, in the *Turkey Point* proceeding, the Commission stated that “any change to a plant’s licensing basis that requires a license amendment — i.e., a change in the technical specifications — will itself offer an opportunity for hearing in accordance with section 189 of the Atomic Energy Act.”⁹⁶ Some of the matters discussed at oral argument in this proceeding dealt with the possibility of such an opportunity for a hearing with regard to future actions related to embrittlement,⁹⁷ and Petitioners may wish to prepare for any such opportunity in light of the findings, conclusions, and comments in this Board’s Memorandum and Order and this Additional Statement. Further, they may wish to provide any information

⁹⁶ *Turkey Point*, CLI-01-17, 54 NRC at 10.

⁹⁷ See Tr. at 84, 86-87, 110-18, 124-29, 182-85, 228-29.

they have on any environmental justice or other relevant environmental issues, as part of the SEIS notice-and-comment process with regard to the Palisades plant. The *Turkey Point* decision of the Commission provides additional guidance on the SEIS process.⁹⁸

⁹⁸ See *Turkey Point*, CLI-01-17, 54 NRC at 11-13.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

E. Roy Hawkens, Chairman
Dr. Paul B. Abramson
Dr. Anthony J. Baratta

In the Matter of

Docket No. 50-0219-LR
(ASLBP No. 06-844-01-LR)
(License Renewal)

AMERGEN ENERGY COMPANY, LLC
(Oyster Creek Nuclear Generating
Station)

March 22, 2006

RULES OF PRACTICE: NEW OR AMENDED CONTENTIONS
(NEW INFORMATION)

After the regulatory time limit has expired for filing a petition to intervene, a petitioner may submit a new or amended contention only with leave of the presiding officer upon a showing that: (1) the information on which the amended or new contention is based was not previously available; (2) the information is materially different than information previously available; and (3) the amended or new contention was submitted in a timely fashion based on the availability of the subsequent information (10 C.F.R. § 2.309(f)(2)).

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

Petitioners seeking to admit new or amended contentions under 10 C.F.R. § 2.309(f)(2) must also satisfy the standard admissibility requirements in 10 C.F.R. § 2.309(f)(1).

RULES OF PRACTICE: CONTENTIONS (NONTIMELY FILINGS)

If a newly presented contention fails to satisfy 10 C.F.R. § 2.309(f)(2), it will be deemed nontimely and must satisfy 10 C.F.R. § 2.309(c) to be admitted. *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 347 (1998).

RULES OF PRACTICE: CONTENTIONS (STAFF'S TENTATIVE VIEWS ABOUT AN ISSUE, STANDING ALONE, WILL NOT ORDINARILY SUPPORT ADMISSION OF A CONTENTION)

Statements made by NRC Staff members during an informal conference call with industry representatives were not declarations of programmatic policy or regulatory conclusions that, for example, might be analogized to conclusions in an Environmental Impact Statement, which could trigger a petitioner's right to amend or file new contentions under 10 C.F.R. § 2.309(f)(2). Rather, the conference call was analogous to a Staff-issued Request for Additional Information, which ordinarily may not be used to support admission of a new contention, because such a request, standing alone, generally does not give rise to a genuine dispute on material issues. *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 337 (1999).

RULES OF PRACTICE: CONTENTIONS (GENERIC ISSUES)

As a general rule, the NRC Staff's mere interest in an issue, its solicitation of public input on an issue, or its proposed revision to a generic guidance document will not — standing alone and lacking an articulated plant-specific safety concern — suffice as a contention's cornerstone (*Calvert Cliffs*, CLI-98-25, 48 NRC at 350).

RULES OF PRACTICE: CONTENTIONS (GENERIC ISSUES)

It has long been established that “the introduction of essentially generic issues, not unique to any given reactor, would be inappropriate in an individual reactor licensing proceeding” absent evidence that the generic issue applied to that particular proceeding (*Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-99, 6 AEC 53, 55 (1973)).

MEMORANDUM AND ORDER
(Denying NIRS's Motion for Leave To Add Contentions or
Supplement the Basis of the Original Contention)

I. INTRODUCTION

On September 15, 2005, the Commission issued a Notice of Opportunity for Hearing (70 Fed. Reg. 54,585 (Sept. 15, 2005)) concerning an application by AmerGen Energy Company, LLC (“AmerGen”) to renew its operating license for the Oyster Creek Nuclear Generating Station (“Oyster Creek”) for 20 years beyond the current expiration date of April 9, 2009. As relevant here, in November 2005, six organizations¹ — hereinafter referred to collectively as NIRS — filed a timely joint request for a hearing, seeking to raise a contention challenging AmerGen’s License Renewal Application ([NIRS] Request for Hearing and Petition To Intervene (Nov. 14, 2005) [hereinafter NIRS Petition]). On February 27, 2006, this Board issued a Memorandum and Order in which we granted NIRS’s hearing request. *See* LBP-06-7, 63 NRC 188, 194 (2006).²

Meanwhile, on February 7, 2006, while NIRS’s hearing request was still pending, we received the motion that underlies this Memorandum and Order — namely, NIRS’s request to add two new contentions to its hearing request or, in the alternative, to supplement the basis of its original contention. *See* Motion for Leave To Add Contentions or Supplement the Basis of the Current Contention (Feb. 7, 2006) [hereinafter NIRS Motion].

For the reasons discussed below, we deny NIRS’s Motion.

II. BACKGROUND

NIRS’s Motion to add new contentions or, in the alternative, to supplement the basis of its original contention is based on what it characterizes as new, previously

¹ The six organizations are Nuclear Information and Resource Service (NIRS); Jersey Shore Nuclear Watch, Inc.; Grandmothers, Mothers and More for Energy Safety; New Jersey Public Interest Research Group; New Jersey Sierra Club; and New Jersey Environmental Federation.

² In NIRS’s Petition, it sought to challenge the adequacy of AmerGen’s aging management program for measuring corrosion in and above the sand bed region of Oyster Creek’s drywell liner, which is a pressure boundary surrounding the reactor vessel. Thereafter, in its Reply Brief, NIRS sought to expand its contention to include the region below the sand bed region. In our Memorandum and Order granting NIRS’s hearing request, we concluded that NIRS’s contention (1) was not admissible to the extent it challenged AmerGen’s aging management program *above* the sand bed region, and (2) was waived, and hence inadmissible, to the extent it challenged AmerGen’s aging management program *below* the sand bed region. However, we concluded that NIRS’s contention — limited to the sand bed region — was admissible. *See* LBP-06-7, 63 NRC at 217 & n.28.

unavailable information that allegedly is material to this proceeding. NIRS explains that on January 17, 2006, the NRC Staff provided the public with notice that, on January 31, 2006, it would conduct a telephone conference call with the Nuclear Energy Institute and other industry representatives to discuss “proposed interim staff guidance for license renewal associated with the corrosion of the Mark I steel containment drywell [liner]” (NIRS Motion, Exh. A, Memorandum from Linh Tran to Jacob I. Zimmerman at 1 (Jan. 17, 2006)). The Staff invited interested members of the public to participate in this conference call via a toll-free telephone number or in person at designated locations (*id.* at 2).

NIRS states that, incident to the conference call, the NRC Staff distributed a PowerPoint presentation which stated that the Staff’s purpose in proposing interim Staff guidance for license renewal is “to detect and monitor corrosion in the inaccessible areas of the drywell [liner]” (NIRS Motion, Exh. B, Teleconference Between Staff and Stakeholders, Potential License Renewal — Interim Staff Guidance on Corrosion of Mark I Steel Containment Drywell Shell at 10 (Jan. 31, 2006)). The PowerPoint presentation stated the Staff’s tentative view that the refueling seal above the drywell liner “needs to be brought into the scope of license renewal,” because although the seal is a non-safety-related component, it can — as a result of leakage onto, and concomitant corrosion of, the drywell liner — “impair the capability of primary containment to mitigate the consequences of an accident” (*ibid.*). Accordingly, the NRC Staff proposed revising NUREG-1800, Rev. 1, Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants [hereinafter LRA Standard Review Plan], to state that operating experience at Mark I steel containments indicates that the likely cause of water found in the bottom outside areas of the drywell liner is leakage from the seal between the refueling cavity and the drywell (*id.* at 12). The Staff also proposed revising NUREG-1801, Rev. 1, Generic Aging Lessons Learned (GALL) Report [hereinafter GALL Report], to recommend the performance of a “root cause analysis” when the “potential for corrosion is indicated in the inaccessible areas of the drywell” (*id.* at 11, 12).

NIRS asserts that information contained in the NRC Staff’s conference call and PowerPoint presentation reveals that the NRC Staff has concluded that (NIRS Motion at 3-4): (1) “corrosion of the Mark I reactor drywell liner is a major safety-related issue that has not received sufficient attention to date” and thus the entire drywell liner, particularly inaccessible areas, must be monitored and evaluated for corrosion; and (2) licensees should conduct a root cause analysis for potential sources of water that may enter the drywell liner including from the refueling seal, which should be brought within the scope of license renewal. NIRS therefore seeks leave — based on this allegedly new and material information — to admit the following two new contentions (*id.* at 11, 13):

1. AmerGen's monitoring regime for the inaccessible areas of the drywell liner is inadequate and must at least include ongoing, regular, direct measurements of thickness at all areas where corrosion could have occurred for the life of the plant and clear acceptance criteria for the measurements; and
2. In addition to direct testing of the thickness of the drywell liner, AmerGen must conduct a root cause analysis of the corrosion problem and implement a verifiable program to eliminate leakage of water onto the drywell liner.

Alternatively, NIRS seeks to supplement its original contention with the allegedly new information arising from the conference call (*id.* at 10).

AmerGen and the NRC Staff filed responses opposing NIRS's Motion. *See* AmerGen's Answer to [NIRS's] Motion for Leave To Add Contentions or Supplement the Basis of the Current Contention (Feb. 17, 2006) [hereinafter AmerGen Opposition]; NRC Staff's Response to Motion for Leave To Add Contentions or Supplement the Basis of the Current Contention (Feb. 17, 2006) [hereinafter NRC Staff Opposition].

III. ANALYSIS

A. NIRS Has Not Satisfied the Regulatory Requirements for Adding New Contentions

After the regulatory time limit has expired for filing a petition to intervene, a petitioner may submit a new contention only with leave of the presiding officer upon a showing that (10 C.F.R. § 2.309(f)(2)(i)-(iii)):

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
- (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

Additionally, to add a new contention, a petitioner must satisfy the following standard admissibility requirements in 10 C.F.R. § 2.309(f)(1): (1) specify the issue to be raised; (2) briefly explain the basis for the contention; (3) demonstrate that the issue is within the scope of the proceeding; (4) demonstrate that the issue is material to the proceeding; (5) provide a concise statement of the alleged facts or expert opinion that support the petitioner's position; and (6) demonstrate that a genuine dispute exists on a material issue of law or fact, and include specific references to allegedly deficient portions of the application.

AmerGen and the NRC Staff argue that NIRS's request to add two new

contentions should be denied because: (1) the allegedly new information does not satisfy the “new contention” requirements of section 2.309(f)(2); and (2) in any event, the newly offered contentions do not satisfy the standard admissibility requirements of section 2.309(f)(1). *See* AmerGen Opposition at 2; NRC Staff Opposition at 2-3. We agree.³

1. NIRS’s Request To Add a New Contention Challenging AmerGen’s “Monitoring Regime for the Inaccessible Areas of the Drywell Liner” Below and Above the Sand Bed Region Is Denied⁴

NIRS asserts that information contained in the NRC Staff’s conference call and PowerPoint presentation reveals that “corrosion of the Mark I reactor drywell liner is a major safety-related issue that has not received sufficient attention to date” and thus the entire drywell liner, particularly inaccessible areas below and above the sand bed region, must be monitored and evaluated for corrosion (NIRS

³ AmerGen and the NRC Staff argue that, before NIRS may introduce its newly presented contentions, it must also satisfy 10 C.F.R. § 2.309(c)(1), which states that “[n]ontimely . . . contentions” shall only be admitted upon the determination of the Licensing Board “based upon a balancing of . . . [eight] factors.” *See* AmerGen Opposition at 14-16; NRC Staff Opposition at 7-10. Because we conclude that the information underlying NIRS’s contentions is neither new nor materially different from previously available information (*infra* pp. 396-98, 400-401), we agree with AmerGen and the NRC Staff that, in the present circumstances, NIRS’s newly presented contentions are nontimely, because NIRS failed to submit them “in a timely fashion based on the availability of the . . . information” (10 C.F.R. § 2.309(f)(2)(iii)). Accordingly, NIRS’s newly presented contentions must satisfy section 2.309(c)(1) to be admitted. *Cf. Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-05-32, 62 NRC 813, 821 n.21 (2005) (observing that if a new contention is “timely” under 10 C.F.R. § 2.309(f)(2)(iii), it is “neither logical nor sensible” to require a petitioner to satisfy the requirements of 10 C.F.R. § 2.309(c) for “nontimely” filings). NIRS made no attempt to show that its newly presented contentions satisfy section 2.309(c), and this omission provides an independent and sufficient basis for not admitting its belated contentions. *See Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 347 (1998). Even if NIRS had sought to admit its nontimely contentions under section 2.309(c), however, it appears to us that its effort would have been unavailing, because it would not have been able to show “[g]ood cause . . . for the failure to file on time” (10 C.F.R. § 2.309(c)(1)(i)), which would, in our judgment, be a determinative factor militating against admission of the belated contentions. *See Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 224-25 (2004) (“our contention admissibility and timeliness requirements ‘demand a level of discipline and preparedness on the part of petitioners,’ who must examine the publicly available material and set forth their claims and the support for their claims at the outset”) (quoting *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428-29 (2003)).

⁴ As mentioned *supra* note 2, in our Memorandum and Order dated February 27, 2006, we admitted NIRS’s contention challenging the adequacy of AmerGen’s aging management program for monitoring corrosion in the sand bed region of the drywell liner. Thus, in the instant case, our inquiry is limited to determining whether to add a new contention that extends to the areas above and below the sand bed region.

Motion at 3). We conclude that — contrary to NIRS’s assertion — this information fails to satisfy the regulatory requirements for admitting a new contention based on previously unavailable information, because the information is neither new (10 C.F.R. § 2.309(f)(2)(i)), nor materially different than information that was previously available (*id.* § 2.309(f)(2)(ii)).⁵

The fact that the NRC Staff expressed concern during the January 31, 2006 conference call about corrosion above the sand bed region of the drywell liner at Mark I reactors hardly constitutes new information for NIRS. NIRS’s Petition To Intervene focused on that precise issue at Oyster Creek, which is a Mark I reactor. Moreover, many of the exhibits that NIRS attached to its Petition To Intervene — including several that are over 10 years old — documented the issue of corrosion at Oyster Creek above the sand bed region of the drywell liner. NIRS’s attempt to characterize the information arising from the January 31, 2006 conference call as new or materially different from information that was previously available is wholly without merit.

Nor did the conference call of January 31, 2006, give rise to new information about potential corrosion below the sand bed region. NIRS’s argument to the contrary is negated by the fact that it previously — and unsuccessfully — sought to raise the issue of corrosion below the sand bed region in its Reply Brief (*supra* note 2). If further evidence were needed to demonstrate that this information is not new, one need simply refer to NIRS’s Motion, which states that its newly presented contention is supported by an exhibit attached to its Petition To Intervene (NIRS Motion at 12) (citing NIRS Petition, Exh. 5, NRC Presentation, Oyster Creek Drywell Corrosion Mitigation at 9 (May 5, 1993)). This exhibit, asserts NIRS, reveals that the concrete floor below the sand bed region was in poor condition and supports the conclusion that water could “run[] down into cracks and crevices in the concrete floor, creating conditions that are conducive to corrosion” (NIRS Motion at 12). The exhibit to which NIRS refers was written in 1993. NIRS cannot be heard to argue, on the one hand, that information regarding potential corrosion below the sand bed region was previously unavailable, and then, on the other hand, rely on a document that is more than 10 years old that allegedly supports its newly presented contention.

⁵ The NRC Staff observes that the statements made by Staff members during the conference call, “as documented by Staff counsel’s notes, greatly differ from, and in some cases directly contradict, NIRS’s characterization of the call in its Motion” (NRC Staff Opposition at 4; *accord* AmerGen Opposition at 4). For this reason, the NRC Staff states that an “untranscribed conference call not concerning the facility or proceeding at issue should not serve as the sole basis for [NIRS’s] contention[s]” (NRC Staff Opposition at 4). The NRC Staff’s concern is misdirected here. NIRS’s Motion is not based solely on the untranscribed discussion that occurred during the conference call. Rather, NIRS submitted the written PowerPoint presentation prepared by the NRC Staff that specified the purpose, background, and basis for the conference call (NIRS Motion, Exh. B). We believe that this twelve-page document provides an adequate basis for considering the merits of NIRS’s Motion.

Significantly, the PowerPoint presentation that the NRC Staff provided incident to the January 31, 2006 conference call also undercuts NIRS's assertion that the conference call gave rise to new and materially different information about potential corrosion below the sand bed region. The presentation indicates that the NRC Staff's GALL Report — which was published in September 2005 — already addresses potential corrosion of inaccessible areas of the drywell liner that are “embedded” in concrete (NIRS Motion, Exh. B at 6). *See also id.*, Exh. B at 7 (GALL Report addresses Aging Management Program for the “inaccessible areas” of the drywell liner that are “embedded” in concrete). Thus, the allegedly new information underlying NIRS's newly presented contention plainly was in existence when NIRS submitted its Petition To Intervene.⁶

In sum, we conclude that the information arising from the January 31, 2006 conference call relating to the monitoring of corrosion of the drywell liner was not new (10 C.F.R. § 2.309(f)(2)(i)) or materially different from previously available information (*id.* § 2.309(f)(2)(ii)). Nor, as mentioned *supra* note 3, was the newly presented contention submitted in a timely fashion (*id.* § 2.309(f)(2)(iii)). Accordingly, this information does not satisfy the threshold requirements of section 2.309(f)(2) for admitting a new contention.

Furthermore, even if we had concluded that the information from the January 31, 2006 conference call satisfied the “new contention” requirements of 10 C.F.R. § 2.309(f)(2), we would nevertheless reject NIRS's newly presented contention challenging the adequacy of AmerGen's corrosion monitoring program for the inaccessible areas above and below the sand bed region, because NIRS: (1) fails to demonstrate that a genuine dispute exists on a material issue (10 C.F.R. § 2.309(f)(1)(vi)); and (2) fails to specify any faulty portions of AmerGen's License Renewal Application (*ibid.*).

NIRS grounds its contention on what it characterizes as NRC Staff “conclu[sions]” that “corrosion of the Mark I reactor drywell liner . . . has not received sufficient attention to date” and the need to provide additional “guidance for detecting and monitoring potential corrosion” of the liner, “particularly in inaccessible areas” below and above the sand bed region (NIRS Motion at 3). Contrary to NIRS's assertion, however, the NRC Staff avers that it *never*

⁶ AmerGen appears to be correct in stating that the conference call of January 31, 2006 “had nothing to do with the lower, embedded portions” of the drywell liner (AmerGen Opposition at 11). The PowerPoint presentation contrasted the concrete-embedded area *below* the sand bed region that the GALL Report addressed (NIRS Motion, Exh. B at 6, 7) with the areas in and above the sand bed region for which the “GALL Report does not provide sufficient guidance when . . . the distance between the [drywell] shell and the surrounding concrete is too small for performing visual examination” (*id.*, Exh. B at 6). In other words, any contemplated revisions to NRC documents appear to be limited to providing guidance for monitoring areas in and above the sand bed region of the drywell liner and, thus, “cannot serve as a basis for admission of a contention that extends to [the area below the sand bed region]” (AmerGen Opposition at 11).

disseminated agency *conclusions* during the conference call. The purpose of the conference call was to solicit input from knowledgeable and interested parties that might assist the NRC Staff in its decisionmaking process and to inform any future conclusions regarding the possible need to revise Staff guidance documents. More specifically, the intended function of the conference call was to “discuss” with industry representatives and interested members of the public proposed future revisions to two nonbinding guidance documents — the LRA Standard Review Plan and the GALL Report (NIRS Motion, Exh. A at 1).

The NRC Staff’s communications during the conference call thus were *not* declarations of programmatic policy or regulatory conclusions that, for example, might be analogized to conclusions in an Environmental Impact Statement, which could trigger a petitioner’s right to amend or file new contentions under 10 C.F.R. § 2.309(f)(2). *See* 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004). Rather, the conference call was analogous to a Staff-issued Request for Additional Information, which ordinarily may not be used to support admission of a new contention, because such a request, standing alone, generally does not give rise to a genuine dispute on material issues. *See Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 337 (1999) (a petitioner may not ground a contention on the Staff’s Request for Additional Information, when the request “show[s] only an ongoing Staff dialogue with [the applicant], not any ultimate Staff determinations”); *accord Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 146-47 (1993)).

Thus, as a general rule, the NRC Staff’s mere interest in an issue, its solicitation of public input on an issue, or its proposed revision to a generic guidance document will not — standing alone and lacking an articulated plant-specific safety concern — suffice as a contention’s cornerstone. *See Calvert Cliffs*, CLI-98-25, 48 NRC at 350. NIRS provides no reason for deviating from this rule. Accordingly, its newly presented contention based on the NRC Staff’s solicitation of public input regarding proposed revisions to Staff guidance documents is not admissible, because it fails to raise a genuine dispute on a material issue (10 C.F.R. § 2.309(f)(1)(vi)).⁷

Moreover, NIRS’s contention is not admissible because it fails to link any specific information arising from the conference call to “specific portions of [AmerGen’s License Renewal] [A]pplication” that are deficient (10 C.F.R.

⁷ Insofar as NIRS’s newly presented contention seeks to challenge AmerGen’s monitoring program for the area above the sand bed region, AmerGen has committed to performing periodic UT measurements throughout the upper region of the drywell liner during the extended period of operation (LBP-06-7, 63 NRC at 216-17 n.27). NIRS’s original contention failed to explain with specificity or support why AmerGen’s corrosion monitoring program for this region is inadequate (*ibid.*). Its newly presented contention is similarly deficient and, therefore, also would be inadmissible for failing to demonstrate a genuine dispute on a material issue (10 C.F.R. § 2.309(f)(1)(vi)).

§ 2.309(f)(1)(vi)). This omission is not surprising, because nothing in the conference call of January 31, 2006 related specifically to AmerGen’s License Renewal Application or AmerGen’s aging management plan for the drywell liner. NIRS — rather than relying on information concerning an alleged deficiency specific to Oyster Creek — seeks to litigate matters arising from the conference call relating to “the generic issue of Mark I drywell shell corrosion and the Staff’s proposal for a generic response to that issue” (AmerGen Opposition at 5). This it may not do. It has long been established that “the introduction of essentially generic issues, not unique to any given reactor, would be inappropriate in an individual reactor licensing proceeding” absent evidence that the generic issue applied to that particular proceeding (*Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-99, 6 AEC 53, 55 (1973)). Given the generic nature of the discussion during the January 31, 2006 conference call, as well as the purpose of the discussion (i.e., to discuss *proposed* changes to *nonbinding* guidance documents regarding a *generic* problem), the information arising from that discussion, standing alone, is insufficient to support an admissible contention. *See Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 773 (1977).⁸

2. NIRS’s Request To Add a New Contention Directing AmerGen To “Conduct a Root Cause Analysis of the Corrosion Problem” Is Denied

NIRS also argues that the information arising from the January 31, 2006 conference call justifies adding a new contention that requires AmerGen to conduct a root cause analysis of the corrosion problem and implement a verifiable program to eliminate leakage of water onto the drywell liner (NIRS Motion at 13-15). We agree with AmerGen and the NRC Staff that this newly presented contention is not admissible. *See* AmerGen Opposition at 17-20; NRC Staff Opposition at 13-15.

First, we conclude that the information underlying the newly presented contention regarding a root cause analysis and the elimination of water leakage onto the drywell liner does not satisfy the “new contention” requirements of section 2.309(f)(2), because it is neither new (10 C.F.R. § 2.309(f)(2)(i)), nor materially different from previously available information (*id.* § 2.309(f)(2)(ii)). This is evidenced by the fact that the information arising from the conference call of

⁸ Even if the NRC Staff eventually revises its guidance documents, such action would not necessarily constitute a basis for amending a contention or admitting a newly presented contention, because these documents are not binding. Rather, they provide regulatory guidance, and “nonconformance [with] such guid[ance] does not equate to noncompliance with the regulations” (NRC Staff Opposition at 14). *See generally River Bend*, ALAB-444, 6 NRC at 773.

January 31, 2006, is substantially similar to information contained in the exhibits attached to NIRS's Petition To Intervene. *See, e.g.*, NIRS Petition, Exh. 1, Office of Inspection and Enforcement, Information Notice No. 86-99, at 1 (Dec. 8, 1986) (discussing the leakage problem at Oyster Creek, and the actions taken to "identify and eliminate this water problem"); *ibid.* (stating that the then-licensee of Oyster Creek stopped the significant leakage that occurred during refueling when it repaired the bellows at the drywell to the cavity seal and replaced a gasket); *id.*, Exh. 2, Office of Nuclear Reactor Regulation, Information Notice No. 86-99, Supp. 1, at 2 (Feb. 14, 1991) (discussing the leakage problem at Oyster Creek, and the actions taken to "investigate, identify, and correct leak paths into the drywell gap and plans to take more action to survey the leakage and prevent it"); *id.*, Exh. 5, at 5 (May 5, 1993) (discussing plan to "stop in-leakage of water [and] take steps to ensure that it stays stopped").⁹

Second, and in any event, NIRS's newly presented contention about a root cause analysis and the elimination of water leakage fails to satisfy the admissibility requirements of 10 C.F.R. § 2.309(f)(1) for essentially the same reasons that NIRS's other newly presented contention failed to satisfy that section. Specifically, NIRS's contention — based as it is on the NRC Staff's solicitation of public input regarding proposed revisions to Staff guidance documents — is not admissible, because it fails to raise a genuine dispute on a material issue (*see supra* pp. 398-99). Additionally, in light of the generalized nature of the January 31, 2006 conference call — which discussed *proposed* changes to *nonbinding* guidance documents regarding a *generic* problem — the information arising from that discussion, standing alone, is insufficient to support an admissible contention, because it fails to identify an alleged deficiency that is specific to Oyster Creek or its License Renewal Application (*supra* pp. 399-400).¹⁰

B. NIRS's Request To Supplement Its Original Contention with the Allegedly New Information Is Denied

NIRS also requests that, if its Motion to add new contentions is denied, it be allowed to supplement its original contention with the information arising from the conference call of January 31, 2006 (NIRS Motion at 10). We are

⁹Notwithstanding the above evidence, our February 27, 2006 Memorandum and Order concluded that NIRS has established a genuine dispute as to whether Oyster Creek has, in fact, eliminated all sources of corrosion-causing moisture from the drywell liner. *See* LBP-06-7, 63 NRC at 224.

¹⁰NIRS is simply incorrect in its belief that tentative, generic-based Staff positions can automatically give rise to a new contention (NIRS Motion at 14-15). As the NRC Staff correctly states, "NIRS may not simply rely on the Staff's interest in generically exploring an issue further as a basis for its contention regarding the license renewal application of a specific plant without some further support or documentation" (NRC Staff Opposition at 15).

persuaded that NIRS's request must be denied. First, NIRS may not rely on 10 C.F.R. § 2.309(f)(2) to supplement its original contention, because the newly presented information is not new, not materially different from previously available information, and not timely presented (*supra* pp. 396-98, 400-401). Second, 10 C.F.R. § 2.309(c) does not provide a basis for allowing NIRS to use the newly presented information to supplement its original contention, because NIRS failed to demonstrate good cause for its belated use of the information (*supra* note 3). Third, and in any event, even if NIRS had included this information in the first instance with its Petition To Intervene, that information would not have altered our conclusion in LBP-06-7 regarding the admissibility of NIRS's contention pursuant to 10 C.F.R. § 2.309(f)(1). *See supra* pp. 398-401; AmerGen Opposition at 2-11; NRC Staff Opposition at 10-13.¹¹

IV. CONCLUSION

For the foregoing reasons, we *deny* NIRS's Motion to add new contentions or, in the alternative, to supplement the basis of its original contention.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD¹²

E. Roy Hawkens, Chairman
ADMINISTRATIVE JUDGE

By Thomas Moore for
Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

Rockville, Maryland
March 22, 2006

¹¹ This decision does not, of course, foreclose NIRS from introducing and relying on any relevant evidence that is otherwise admissible at the hearing on its admitted contention.

¹² Copies of this Memorandum and Order were sent this date by Internet e-mail to counsel for: (1) AmerGen, (2) NIRS, (3) New Jersey, and (4) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Thomas S. Moore, Chairman
Dr. Paul Abramson
Dr. Anthony J. Baratta

In the Matter of

Docket No. 30-36974-ML
(ASLBP No. 06-843-01-ML)
(Material License Application)

PA'INA HAWAII, LLC

March 24, 2006

In this proceeding on the application of Pa'ina Hawaii, LLC, to build and operate a commercial pool-type industrial irradiator (i.e., a possession and use materials license), the Licensing Board finds that the Petitioner, Concerned Citizens of Honolulu, has proffered three admissible safety contentions. Previously, in LBP-06-4, 63 NRC 99 (2006), the Board found that the Petitioner had established its standing to intervene and had proffered two admissible environmental contentions and granted the Petitioner's request for a hearing.

RULES OF PRACTICE: CONTENTIONS (PLEADING)

The Commission's contention admissibility requirements are rigorous, and "demand a level of discipline and preparedness on the part of petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the *outset*." *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 224-25 (2004) (emphasis added) (quoting *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428-29 (2003)). A

petitioner may not ignore this burden when submitting its contentions, and then rectify their inadequacies in its reply.

RULES OF PRACTICE: CONTENTIONS (PLEADING)

The Commission's regulations and rulings require that the petitioner's reply be "narrowly focused on the legal or logical arguments presented in the applicant/licensee or NRC staff answer." 69 Fed. Reg. 2182, 2203 (Jan. 14, 2004).

RULES OF PRACTICE: CONTENTIONS (PLEADING)

The pleading requirements of 10 C.F.R. § 2.309(f)(1)(v), calling for a recitation of facts or expert opinion supporting the issue raised, are inapplicable to a contention of omission beyond identifying the regulatively required missing information.

RULES OF PRACTICE: CONTENTIONS (SCOPE OF PROCEEDING)

The scope of a proceeding generally is defined by the Commission's notice of opportunity for hearing. *See Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 118 (1995).

**MEMORANDUM AND ORDER
(Ruling on Petitioner's Safety Contentions)**

I. INTRODUCTION

On January 24, 2006, we issued LBP-06-4, 63 NRC 99 (2006), granting the hearing request of the Petitioner, Concerned Citizens of Honolulu, on the application of Pa'ina Hawaii, LLC (Pa'ina Hawaii or Applicant) to build and to operate a commercial pool-type industrial irradiator using a cobalt-60 source at the Honolulu International Airport. We found that the Petitioner had standing to intervene and that its two proffered environmental contentions were admissible — the necessary prerequisites for the grant of a hearing petition. Because portions of the Pa'ina Hawaii irradiator application contained sensitive nonpublic information that could be made available, if at all, only to the Petitioner's counsel and expert after additional procedures and under a protective order, we bifurcated the first part of the proceeding and initially addressed the environmental contentions that did not involve nonpublic information. In this decision, we now address the

admissibility of the Petitioner's safety contentions.¹ Our earlier ruling outlined the requirements for the admissibility of contentions in 10 C.F.R. § 2.309(f)(1)(i)-(vi).² Although that discussion is not repeated here, we assess the admissibility of the proffered safety contentions against those same requirements.

Before addressing each safety contention, it is useful to address a number of recurrent themes in the parties' pleadings. As filed, several of the Petitioner's contentions are far from models of clarity. It is often difficult to identify exactly what issue or issues the Petitioner is attempting to raise and with what accompanying support. Those contentions appear to present a variety of generic areas of concern, followed by a "kitchen-sink" collection of purported support for each area of concern. The Petitioner's reply then fills in many of the glaring gaps in its original pleading. Indeed, many arguments in its reply bear little resemblance to those in the original hearing petition. It is necessary, therefore, to address briefly what we may properly consider in determining the admissibility of the proffered contentions.

The Commission's contention admissibility requirements are rigorous, and "demand a level of discipline and preparedness on the part of petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the outset."³ A petitioner may not ignore this burden when submitting its contentions, and then rectify their inadequacies in its reply. The Commission's regulations and rulings require that the petitioner's reply be "narrowly focused on the legal or logical arguments presented in the applicant/licensee or NRC staff answer."⁴ According to the Commission, allowing a party to freely augment its contentions in its reply would circumvent the requirements for late or amended contentions set forth in 10 C.F.R. § 2.309(c) and (f)(2).⁵ As the Commission stated in *LES*, "[t]here simply would be 'no end to NRC licensing proceedings if petitioners could disregard our timeliness requirements' and add new bases or new issues that 'simply did not occur to [them] at the outset.'"⁶

¹ In its original hearing request, the Petitioner submitted twelve safety-related contentions. *See* Request for Hearing by Concerned Citizens of Honolulu (Oct. 3, 2005) [hereinafter Hearing Request]. However, in its reply the Petitioner withdrew contention 3 and contention 12. *See* Petitioner Reply in Support of Its Request for Hearing (Dec. 1, 2005) at 15, 22 [hereinafter Petitioner Reply]. To limit confusion we will continue to refer to the contentions by the original numbering used by the Petitioner in its hearing request and reply.

² *See* LBP-06-4, 63 NRC at 107-08.

³ *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 224-25 (2004) (emphasis added) (quoting *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428-29 (2003)).

⁴ 69 Fed. Reg. 2182, 2203 (Jan. 14, 2004); *see LES*, CLI-04-25, 60 NRC at 225.

⁵ *See LES*, CLI-04-25, 60 NRC at 224.

⁶ *Id.* at 225 (quoting *McGuire*, CLI-03-17, 58 NRC at 428-29).

Additionally, the Petitioner's repeated reliance upon the presiding officer's determinations of admissibility of "areas of concern" based upon a standard of "germaneness" in *CFC Logistics, Inc. (Cobalt-60 Irradiator)*, LBP-03-20, 58 NRC 311, 323-33 (2003) warrants brief discussion. The *CFC* proceeding involved a license application for the same type of irradiator as involved here but was conducted pursuant to the then-applicable "informal hearing proceeding" rules in the former 10 C.F.R. Part 2, Subpart L, §§ 2.1201–1263 (2003). Those now-superseded regulations did not require a petitioner to file highly specific detailed contentions — a requirement then applicable only to formal proceedings under 10 C.F.R. Part 2, Subpart G, §§ 2.700–790 (2003). Rather the old Subpart L regulations required a petitioner only to specify "areas of concern [that] are germane to the subject matter of the proceeding." 10 C.F.R. § 2.1205(h) (2003). Subsequent to the presiding officer's rulings in *CFC*, the Commission adopted a wholesale revision of its rules of practice in 2004, jettisoning entirely the concept of "areas of concern" in informal proceedings and requiring, *inter alia*, that all petitioners file contentions meeting the stricter requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi).⁷ While noting that the Commission has revised its rules,⁸ the Petitioner seemingly fails to recognize that the Commission's contention rules impose "more stringent pleading requirements."⁹ Although there is little doubt that the Petitioner's proffered claims could be found "germane" and thus admissible under the former standard, that conclusion is of no moment because "[n]o longer are general 'areas of concern' sufficient to trigger a hearing in a Subpart L proceeding; an intervenor must articulate specific contentions with adequate bases."¹⁰

It is also appropriate to address a number of misguided arguments in the Applicant's answer. The Applicant repeatedly uses its answer to engage in an attempted merit-based refutation of the Petitioner's contentions.¹¹ At the contention admissibility stage of the proceeding, however, a factual defense is generally irrelevant and inappropriate. Similarly, the Applicant repeatedly argues that 10 C.F.R. Part 36 and the NRC Staff review of the application based upon those standards insulates it from the Petitioner's challenges. While the regulations in Part 36 "set the standards that must be applied" to the Pa'ina application, "they do not embody a determination that the facility meets those standards."¹² Finally, a contention is not an impermissible challenge to agency regulations proscribed

⁷ See 10 C.F.R. § 2.309(a).

⁸ See Petitioner Reply at 9 n.3.

⁹ *U.S. Army (Jefferson Proving Ground Site)*, CLI-05-23, 62 NRC 546, 549 (2005).

¹⁰ *Id.*

¹¹ See, e.g., Applicant Pa'ina Hawaii, LLC's Answer to Request for Hearing by Concerned Citizens of Honolulu (Oct. 26, 2005) at 19, 26, 28 [hereinafter Applicant Answer].

¹² *CFC*, LBP-03-20, 58 NRC at 327.

by 10 C.F.R. § 2.335 merely because the Applicant and the Staff believe the regulations have been satisfied.

The Applicant also misconceives the nature of the Petitioner's reliance upon the "special circumstances" provision of 10 C.F.R. § 51.22(b). As discussed in LBP-06-4, 63 NRC at 108, admitting Petitioner's environmental contentions, section 51.22(b) "provides a special circumstances exception for actions in which a blanket finding is made by rule that the licensing action does not have a significant effect on the human environment." The Petitioner's environmental contentions alleged that certain conditions presented "special circumstances" that triggered a need for environmental review. Section 51.22(b)'s "special circumstances" provision has no relevance to claims unrelated to the Commission's environmental regulations. The Petitioner has not alleged, as the Applicant repeatedly argues, that the "special circumstances" provision is applicable to its safety contentions.

II. CONTENTIONS

In its hearing request, the Petitioner proffered twelve safety contentions but subsequently withdrew contentions three and twelve.¹³ As explained below, we find that the Petitioner's fourth, sixth, and seventh proffered safety contentions are admissible and that its first, second, fifth, eighth, ninth, tenth, and eleventh safety contentions are inadmissible.

A. Contention 1

The Petitioner's first safety contention is entitled "Inadequate Procedures To Ensure Safe Loading and Unloading of Cobalt-60 Pencils."¹⁴ The body of the contention, however, raises numerous challenges to the design of the irradiator, making it difficult to decipher. In this respect, the Commission's pleading requirements are rigorous: "the burden of setting forth a clear and coherent argument" rests squarely on the shoulders of the Petitioner.¹⁵ If we misapprehend

¹³ See *supra* note 1.

¹⁴ Hearing Request at 10. The contention, like all of the Petitioner's safety contentions, closely mirrors the attached declaration of Marvin Resnikoff, Ph.D., a physicist who is a senior associate with Radioactive Waste Management Associates, a private consulting firm. According to his declaration, Dr. Resnikoff has researched radioactive waste issues for 30 years and has, *inter alia*, extensive experience and training in nuclear waste management, storage, and disposal. See Declaration of Marvin Resnikoff, Ph.D. (Sept. 30, 2005) ¶ 1 [hereinafter Resnikoff Decl.].

¹⁵ *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 194 (1999).

the intended meaning of the contention, the Petitioner “bears the responsibility for any . . . misunderstanding.”¹⁶

The bulk of the first contention is a discussion of the alleged effects or consequences of hypothetical accidents involving dropped shipping casks. Two separate challenges, however, appear to be imbedded in this contention. The first allegation is that the design of the proposed irradiator is inadequate because it does not include a single failure-proof crane. Citing 10 C.F.R. § 36.39(c)’s design requirements for “Pool Integrity,” the contention claims that a single failure-proof crane is needed in order to ensure “that a dropped cask would not fall on sealed sources,” as stated in that regulation.¹⁷ The second allegation is that the application must discuss “how the applicant intends to recover” from various accident scenarios involving cask drops during loading.¹⁸ In support of this latter proposition, the contention asserts that 10 C.F.R. § 36.53(b) requires that the application include “emergency procedures for accidents that may occur during loading and unloading sources.”¹⁹

The Applicant suggests that the Petitioner’s design challenge, essentially Dr. Resnikoff’s call for a single failure-proof crane, is an impermissible challenge to the NRC’s rules for irradiators, in that no such regulation exists for irradiators. Further, the Applicant insists that the proposed irradiator type has been “fully analyzed and critiqued by the NRC” in its review of a similar irradiator in *CFC*.²⁰ Thus, the Applicant argues that the contention is “factually wrong” because the equipment and systems associated with the source loading and unloading have been properly assessed by the Staff (albeit previously in another setting).²¹ Finally, relying upon the Appeal Board decision in *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1107 (1983), holding that challenges to the implementing procedures for a 10 C.F.R. Part 50 reactor emergency plan are not material to licensing proceedings, the Applicant argues that the second portion of this contention presents an inadmissible challenge to emergency and remediation plans.²²

¹⁶ *Id.*

¹⁷ Hearing Request at 10 (quoting 10 C.F.R. § 36.39(c)).

¹⁸ *Id.*

¹⁹ *Id.* at 12.

²⁰ Applicant Answer at 18; see *CFC*, LBP-03-20, 58 NRC at 311.

²¹ Applicant Answer at 19.

²² See *id.* at 21. The Applicant makes a similar argument with respect to the sixth safety contention. See *id.* at 27. In both instances the Applicant appears to be responding to a challenge that the Petitioner has simply not made, and, in any event, an argument that is not relevant to the current proceeding. At issue in *Waterford* was the emergency plan in a reactor operating license proceeding under 10 C.F.R. § 50.47, not the written emergency procedure requirements for irradiators in 10 C.F.R. Part 36. The only connection between the Petitioner’s contentions concerning emergency procedures here and the emergency plans in *Waterford* is the word “emergency.”

Noting the lack of clarity in this contention, the Staff questions whether the contention intends to challenge the design of the irradiator or the proposed operating procedures. It argues, therefore, that the contention “has failed to provide a specific statement of the issue of law or fact to be controverted, as required by 10 C.F.R. § 2.309(f)(1)(i).”²³ The Staff then limits its argument to the Petitioner’s apparent procedural claim that “Pa’ina Hawaii has failed to include all the information related to Co-60 source loading and unloading as required by 10 C.F.R. § 36.53 in its application.”²⁴ Arguing that the Petitioner’s reliance on 10 C.F.R. § 36.53(b) is misguided, in that section 36.53(b) “does not require such procedures,” the Staff concludes that the contention lacks an adequate basis and fails to identify a genuine dispute on a material issue of law or fact.²⁵

The only reference to a design element in the contention is a single statement, “the irradiator must have a single failure-proof crane,”²⁶ and the only support for that proposition is Dr. Resnikoff’s conclusory declaration that “similar to the reactor, the irradiator must have installed a single failure-proof crane, so that the crane cannot fail.”²⁷ While the Applicant and the Staff clearly had difficulty determining the focus and substance of this contention, such circumstances do not eliminate the need to address its admissibility pursuant to 10 C.F.R. § 2.309(f)(1)(i)-(vi).

By pointing to the design requirements for Pool Integrity in section 36.39(c) requiring “that a dropped cask would not fall on sealed sources” as the basis for its challenge, the design-based challenge has provided the necessary statement of law and basis required by 10 C.F.R. § 2.309(f)(1)(i) & (ii). Further, a finding that the design requirements of section 36.39 are satisfied is a necessary prerequisite of the grant of a Part 36 license; thus, this contention is both within the scope of, and material to, this proceeding, satisfying 10 C.F.R. § 2.309(f)(1)(iii) & (iv).

Lacking, however, is sufficient information to demonstrate that a genuine dispute exists. The Petitioner has proffered the single conclusory statement of Dr. Resnikoff that a single failure-proof crane must be installed, without identifying specific flaws in the proposed design that would result in the violation of section 36.39(c), or detailing the sources or materials upon which Dr. Resnikoff bases his

²³ Staff Response to Request for Hearing by Concerned Citizens of Honolulu (Oct. 28, 2005) at 6 [hereinafter Staff Answer].

²⁴ *Id.*

²⁵ *Id.*

²⁶ Hearing Request at 10.

²⁷ Resnikoff Decl. ¶ 12.

opinion.²⁸ Such a statement, without additional support, is little more than speculation and insufficient to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi). Therefore, the design-based challenge in the first contention is inadmissible.

The Petitioner's challenge to the application's satisfaction of 10 C.F.R. § 36.53(b) is equally flawed. The Petitioner contends that information regarding "essential safety measures is missing from the application."²⁹ Specifically, the contention, again relying upon the declaration of its expert, identifies the loading and unloading of Co-60 as a process that is "susceptible to a major accident,"³⁰ and claims that 10 C.F.R. § 36.53(b) requires the application to discuss emergency procedures associated with a cask drop accident, including damage to the pool liner.³¹ This portion of Contention 1 fails to allege a single deficiency with regard to the ten emergency procedures required by 10 C.F.R. § 36.53(b), and instead simply makes the bare assertion that the application lacks emergency procedures required by Commission regulations. As such, the portion of the contention asserting missing emergency procedures fails to demonstrate that a genuine dispute exists on a material issue of law or fact as required by 10 C.F.R. § 2.309(f)(1)(vi) and is also inadmissible.

Finally, the Petitioner's reply seeks to resurrect the contention by attempting to correct its various deficiencies. Most notably, the Petitioner asserts for the first time in the reply that the application has failed to provide an outline of the operating procedures for "[l]oading, unloading and repositioning sources," as required by 10 C.F.R. § 36.53(a)(7), and identifies three specific emergency procedures, listed in section 36.53(b), that it contends are triggered by loading and unloading accidents and are absent from the application.³² This information was available to the Petitioner from the beginning, and it is without excuse for failing to provide this foundational support in its original contention. Therefore, the newly supplied information comes too late to save the contention.³³

²⁸ See Resnikoff Decl. ¶ 12. For example, Dr. Resnikoff invokes a comparison to a nuclear reactor but he does not explain why such a comparison is even apt or point to any regulatory requirement mandating a single failure-proof crane for an irradiator. Similarly, Dr. Resnikoff posits events such as the contamination of pool water and radioactive air releases from a shipping cask dropped onto sources in the pool. Again, however, he provides no explanation how such supposed phenomena are feasible with sealed Co-60 sources meeting the requirements of 10 C.F.R. § 36.21 (i.e., how encapsulated solid, cobalt metal sources are soluble in water and dispersible in air, especially when underwater).

²⁹ Hearing Request at 10.

³⁰ *Id.* at 11; see Resnikoff Decl. ¶ 13.

³¹ See Hearing Request at 10-12; see also Resnikoff Decl. ¶¶ 12-16.

³² See Petitioner Reply at 10-11.

³³ We gave the Petitioner the opportunity to supplement its reply and properly remedy its challenge involving the lack of procedures relating to the loading and unloading of Co-60 sources in the application. The operating and emergency procedures first identified in the Petitioner's original

(Continued)

B. Contention 2

The Petitioner's second safety contention asserts that the application fails to address risks from the irradiator overheating.³⁴ The Petitioner filed its contention before it gained access to the Applicant's thermal projections that had been redacted from the publicly available version of the application. From the information initially available, the Petitioner challenged the accuracy of the Applicant's thermal calculations and claimed that the application failed to demonstrate that the sources would not degrade from overheating.

Having reviewed the Applicant's thermal calculations before filing its reply, the Petitioner has now abandoned its claim that "degradation of the sources from overheating is likely."³⁵ Instead, the Petitioner asserts in its reply that the application fails to address the risks of overheating because it does not demonstrate that a "heat exchanger will — not only might — be installed on the system."³⁶ Therefore, according to the Petitioner the application fails to satisfy the requirements of 10 C.F.R. § 30.33(a)(2).³⁷ Pointing to its expert's declaration, the Petitioner claims that without a functioning heat exchanger the pool temperature will inexorably rise to the boiling point, resulting in the loss of water needed to shield the irradiator sources and prevent radioactive releases.³⁸ In his supplemental declaration, Dr. Resnikoff asserts that it will "take about 1.5 months for the pool water to reach 212°F" and that "[e]vaporation will increase as the temperature rises and makeup water will have to be added to ensure adequate shielding of the sources."³⁹ According to Dr. Resnikoff, in order to protect the public's safety, the Applicant must install a heat exchanger to maintain the pool water at 100°F and it must provide adequate backup systems to ensure the heat exchanger

reply had been initially identified by the Staff as sensitive nonpublic information, and withheld by the Applicant. Ultimately, the Staff determined that the information related to the Petitioner's first contention was subject to protection under 10 C.F.R. § 2.390, and available to the Petitioner subject to the terms of our December 8, 2005, protective order. We provided the Petitioner with the opportunity, and clear directions, to file a supplemental reply addressing any issues arising from material previously withheld or redacted pursuant to 10 C.F.R. § 2.390. *See* Licensing Board Order (Jan. 20, 2006) at 2-3 (unpublished). The Petitioner's supplemental reply did not address any missing procedures required by 10 C.F.R. § 36.53(a)(7). *See* Petitioner's Supplemental Reply in Support of Its Request for Hearing (Jan. 26, 2006) (proprietary) [hereinafter Petitioner Supplemental Reply].

³⁴ *See* Hearing Request at 12.

³⁵ Petitioner Reply at 14.

³⁶ *Id.*

³⁷ *See id.*

³⁸ *See id.*

³⁹ Petitioner Reply, Supplemental Declaration of Marvin Resnikoff, Ph.D. (Nov. 23, 2005), ¶¶ 14, 15 [hereinafter Supp. Resnikoff Decl.].

always continues functioning.⁴⁰ Neither the Applicant nor the Staff sought leave to respond to the Petitioner's reply.

Putting aside the question whether the issue and the foundational support in the Petitioner's reply is a new or amended contention requiring compliance with 10 C.F.R. § 2.309(f)(2), the contention as now presented is inadmissible. The linchpin of the second safety contention is that the evaporative loss of irradiator pool water will lead to the loss of shielding of the Co-60 sources if a heat exchanger is not installed to cool the pool water. The Petitioner's contention, however, ignores the regulatory requirement of 10 C.F.R. § 36.33(c) that the irradiator must have "[a] means . . . to replenish water losses from the pool." Similarly, it ignores the requirement of 10 C.F.R. § 36.33(d) that the irradiator have "[a] visible indicator . . . in a clearly visible location to indicate if the pool water is below the normal low water level or above the normal high water level." Both of these mandatory provisions address, *inter alia*, the provision of makeup water to protect against evaporative loss of irradiator pool water to ensure adequate shielding, and the Petitioner does not challenge the Applicant's compliance with these regulatory provisions. Nor, absent evidence to the contrary, can it be "assume[d] that licensees will contravene our regulations."⁴¹ Additionally, the Petitioner's own expert, in his supplemental declaration supporting the contention, concedes that the addition of makeup water will ensure adequate shielding of the radioactive sources — the asserted public safety shortcoming.⁴² Thus, the contention fails to show a genuine dispute on a material issue of law or fact as required by 10 C.F.R. § 2.309(f)(1)(vi) for it to be admissible.

C. Contention 4

The Petitioner's fourth safety contention, entitled "Failure To Address Accidents Involving Prolonged Loss of Electricity," alleges that, contrary to 10 C.F.R. § 36.53(b)(6), the Pa'ina Hawaii application fails to describe emergency procedures for accidents involving a prolonged loss of electricity.⁴³ Relying upon the declaration of its expert, the Petitioner concludes that "the safety of neighboring members of the public" cannot be assured "[w]ithout clear measures for recover[y] from a prolonged loss of electricity."⁴⁴ The contention next posits sev-

⁴⁰ See *id.* ¶ 15.

⁴¹ *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000).

⁴² See Supp. Resnikoff Decl. ¶ 15.

⁴³ Hearing Request at 13.

⁴⁴ Resnikoff Decl. ¶ 27.

eral loss of power accident scenarios involving clogged filters from water-logged product and the overheating of the radioactive sources.⁴⁵

In opposing the admission of the contention, the Applicant declares that the NRC has already conducted exhaustive studies and determined that underwater irradiators do not threaten safety even if there are prolonged electricity outages. Without providing either a section or page number, the Applicant then quotes a sentence from NUREG-1556, “Consolidated Guidance About Materials Licenses,” Vol. 6, “Program-Specific Guidance About 10 C.F.R. Part 36 Irradiator Licenses” (Jan. 1999), stating “[f]or underwater irradiators, no response is required from the applicant in a license application.”⁴⁶ Presumably the Applicant intends to argue that 10 C.F.R. § 36.53(b)(6) is inapplicable.⁴⁷ For its part, the Staff argues that the contention fails to raise a genuine dispute on a material issue of law or fact as required by 10 C.F.R. § 2.309(f)(1)(vi) because it does not cite a regulation requiring emergency procedures for the prolonged loss of electricity.⁴⁸ Next, even though conceding that 10 C.F.R. § 36.53(b)(6) requires licensees to have emergency procedures for a prolonged loss of electrical power, the Staff argues that, at the application stage, 10 C.F.R. § 36.13(c) requires only an outline of each procedure.⁴⁹ Pointing to a specific page of the application, the Staff then asserts that the application addresses loss of power and the Petitioner has not identified any deficiency in that discussion.⁵⁰

Contrary to the claims of the Applicant and the Staff, the Petitioner’s fourth contention is admissible. It is a simple, straightforward contention of omission, i.e., one that claims, in the words of 10 C.F.R. § 2.309(f)(1)(vi), “the application fails to contain information on a relevant matter as required by law . . . and the supporting reasons for the petitioner’s belief.” The contention asserts that the Pa’ina Hawaii application fails to describe the emergency procedures for a prolonged loss of electricity as required by 10 C.F.R. § 36.53(b)(6). That regulation requires an irradiator licensee to have emergency procedures for a prolonged loss of electrical power. As is obvious, the contention specifically pleads the legal issue raised as called for by 10 C.F.R. § 2.309(f)(1)(i). In fully stating the issue, the contention also indicates that the missing description of emergency procedures is mandated by section 36.53(b)(6), thereby meeting the basis requirement of 10 C.F.R. § 2.309(f)(1)(ii). By asserting that the Pa’ina Hawaii application fails to comply with the agency’s applicable irradiator regulations, the contention squarely

⁴⁵ See Hearing Request at 14.

⁴⁶ Applicant Answer at 25.

⁴⁷ See *id.*; Declaration of Russell N. Stein in Response to Declaration of Marvin Resnikoff of September 30, 2005 (Oct. 20, 2005), ¶ 27.

⁴⁸ See Staff Answer at 9.

⁴⁹ See *id.* at 9-10.

⁵⁰ See *id.* at 10.

places the issue raised within the scope of the proceeding in conformity with 10 C.F.R. § 2.309(f)(1)(iii). Similarly, as a properly pled contention of omission, it raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance (here compliance with 10 C.F.R. § 36.13(a)), thus meeting the pleading requirements of 10 C.F.R. § 2.309(f)(1)(iv). Further, the pleading requirements of 10 C.F.R. § 2.309(f)(1)(v), calling for a recitation of facts or expert opinion supporting the issue raised, are inapplicable to a contention of omission beyond identifying the regulatively required missing information. Finally, as a contention of omission, it necessarily presents a genuine dispute with the Applicant on a material issue in compliance with 10 C.F.R. § 2.309(f)(1)(vi).

The Applicant's apparent claim that 10 C.F.R. § 36.53(b)(6) is inapplicable to pool irradiators based upon NUREG-1556 seemingly misapprehends the cited reference and the Commission's irradiator regulations. As previously indicated, the Applicant has not identified either the section or page in volume 6 of the NUREG in which the quoted sentence appears and the same quoted language is repeated multiple times. The Applicant may be referring to section 8.9.8 of volume 6 entitled "Power Failures," dealing primarily with panoramic irradiators and in which the quoted sentence appears. However, section 8.10.8 of volume 6, entitled "Emergency Procedures" — the subject of the Petitioner's contention — contains no such language and specifically states that "[I]censees must have and follow emergency or abnormal event procedures, appropriate for the irradiator type, for: . . . [a] prolonged loss of electrical power (include 10 CFR 36.37 and 36.67(c) requirements)."⁵¹ Subsection (c) of the referenced section 36.37 includes within its scope underwater irradiators while subsection 36.67(c) addresses only underwater irradiators. Thus, contrary to the Applicant's claim, we cannot conclude based upon a reading of the applicable sections of volume 6 of NUREG-1556 that the NRC Staff document indicates that the emergency procedures provisions of 10 C.F.R. § 36.53(b)(6) are inapplicable. In any event, NUREG-1556 does not repeal the Commission's regulation.

The Staff's arguments are equally unavailing. First, the Staff asserts that the contention does not cite a regulation requiring that the application describe the emergency procedures for a prolonged loss of electricity and therefore it fails to raise a genuine dispute. In the next breath, however, the Staff concedes that 10 C.F.R. § 36.53(b)(6) requires such procedures but claims 10 C.F.R. § 36.13(c) requires only that there be an outline of such procedures in the application. Yet the Petitioner's contention states that the "application fails to describe emergency procedures . . . involving a prolonged loss of electricity."⁵² Contrary to the Staff's

⁵¹ NUREG-1556, "Consolidated Guidance About Materials Licenses," Vol. 6, "Program-Specific Guidance About 10 C.F.R. Part 36 Irradiator Licenses" (Jan. 1999), at 8-49 to -50.

⁵² Hearing Request at 13.

argument, this language clearly means that the application lacks any description of the required emergency procedures, which would include, of course, an outline of such procedures. Next, the Staff argues that “Pa’ina Hawaii has addressed loss of power on page 39 of the application” and that the Petitioner has not identified any deficiency in that discussion.⁵³ Most charitably stated, this Staff argument is pure sophistry. Although literally true because page 39 of the application contains a brief mention of “loss of power” as the Staff states, that subject in the application, like the Applicant’s mistaken reliance upon a sentence from NUREG-1556, has no relevance to the failure of the application to include a description of the emergency procedures for a prolonged loss of electricity as required by 10 C.F.R. § 36.53(b)(6).⁵⁴ As the Staff should know, its own guidance in section 8.10.8 of volume 6 of NUREG-1556 addresses, *inter alia*, the requirement for emergency procedures for a prolonged loss of electrical power at underwater irradiators. If for some reason the Staff believes that such emergency procedures are not necessary, its answer needs to present a detailed, supported, reasoned explanation of why such procedures are not required in response to the contention — an explanation sorely lacking in the Staff’s pleadings. Accordingly, the Petitioner’s fourth safety contention is admitted as a contention of omission, i.e., the application fails to describe emergency procedures involving a prolonged loss of electricity.

D. Contention 5

The Petitioner’s two-sentence fifth safety contention asserts that the Pa’ina Hawaii application, contrary to 10 C.F.R. § 36.53, “has no emergency procedures for accidents involving a break in the compressed [air] line.”⁵⁵ It then declares, without more, that such an accident would degrade the product being irradiated

⁵³ Staff Answer at 10.

⁵⁴ In its entirety, page 39 of the application states: “Power failures: Not applicable to Pool Irradiators: the sources are always in the shielded condition and therefore no power is required to return the sources to shielded condition.” Pa’ina Hawaii License Application (June 23, 2005) at 39, ADAMS Accession No. ML0520603720. To suggest such a statement would qualify as an outline of emergency procedures for a prolonged loss of electricity meeting the requirements of 10 C.F.R. §§ 36.37(c) & 36.67(c) is absurd. While the complete emergency procedures are not required, there is no doubt that the Commission envisioned something more substantial than a subject heading. In the regulatory history describing the “outline” mandated by 10 C.F.R. § 36.13(c), the Commission stated, “[t]he NRC decided to require an outline that describes the operating and emergency procedures in broad terms that specifically state the radiation safety aspects of the procedures rather than to require the complete operating and emergency procedures.” 58 Fed. Reg. 7715, 7717 (Feb. 9, 1993). There is no doubt that a “broad term” outline must still include specific radiation safety aspects.

⁵⁵ Hearing Request at 14. In his supplemental declaration accompanying the Petitioner’s reply, Dr. Resnikoff acknowledges that he mistakenly stated that helium, rather than compressed air, was used in the bells. *See* Supp. Resnikoff Decl. ¶ 17.

by allowing water to enter the bells. The Applicant opposes the admission of the contention on the ground that it lacks any factual basis, while the Staff argues the contention fails to state a genuine dispute on a material issue of law or fact.⁵⁶

Unlike the Petitioner's fourth safety contention based on 10 C.F.R. § 36.53(b)(6), its fifth contention does not identify a specific subsection of section 36.53(b) that requires emergency procedures for compressed gas line breaks. None of the ten "emergency or abnormal event[s]" listed in the ten subsections of the regulations, 10 C.F.R. § 36.53(b)(1)-(10), refers to compressed air or helium line breaks or any occurrence that would encompass such an incident. In the context of a compressed gas line break, without identifying a specific regulatory requirement that has been violated, the contention fails to identify a genuine dispute on a material issue of law as required by 10 C.F.R. § 2.309(f)(1)(vi). Hence, the Petitioner's fifth safety contention is inadmissible.

In its reply the Petitioner alters course, apparently abandoning its claim that 10 C.F.R. § 36.53 has somehow been violated.⁵⁷ Instead, the Petitioner alleges that a break in either the helium line to the plenum or compressed air line to the bells could "plug the ion exchange filter" with food product and compromise pool water purity "violating §§ 36.33(e), 36.39(d), and 36.63."⁵⁸ The reply further contends that in the event of a helium/air line break and subsequent filter malfunction and pool contamination, worker radiation exposures would rise and thereby violate 10 C.F.R. § 30.33(a)(2)'s "mandate to 'protect health and minimize danger to life.'"⁵⁹ While Commission practice allows a Petitioner to "legitimately amplify" issues raised in the hearing request in response to Applicant and Staff answers, here the Petitioner has proffered an entirely rebuilt contention, keeping only the previous title. Without even a mention of "emergency procedures" or violations of 10 C.F.R. § 36.53, the reply impermissibly offers totally new challenges.

E. Contention 6

The sixth proffered contention challenges the lack of emergency procedures in the application for events involving natural phenomena. Referencing the discussion concerning the risks of tsunamis and hurricanes in its environmental contentions, the Petitioner's safety contention states that the proposed site for the Pa'ina Hawaii irradiator creates a risk of damage from tsunamis as well as "wave run-up and high winds associated with a major tropical storm or hurricane," and

⁵⁶ See Applicant Answer at 26-27; Staff Answer at 10.

⁵⁷ See Petitioner Reply at 16-17.

⁵⁸ *Id.* at 17.

⁵⁹ *Id.* (quoting 10 C.F.R. § 30.33(a)(2)).

asserts that the application “has no discussion of the potential for such emergency events and the procedures that would be implemented should they occur, in violation of 10 C.F.R. § 36.53(b)(9).”⁶⁰

The Applicant claims the contention is inadmissible because the Commission addressed siting issues in the 1993 rulemaking for irradiators in 10 C.F.R. Part 36, which contains no siting restrictions concerning flooding or tidal waves. It also argues that there is no factual basis for the contention because there is no risk of tsunamis or flooding at the site.⁶¹ According to the Staff, the contention fails to provide a concise statement of the alleged facts or expert opinion as required by 10 C.F.R. § 2.309(f)(1)(v) and, in any event, “10 C.F.R. § 36.53 does not require such [emergency] procedures in the application.”⁶²

The arguments of both the Applicant and the Staff misapprehend the nature of the Petitioner’s contention. Like its fourth contention, the Petitioner’s sixth safety contention is a contention of omission. The contention asserts that there are no emergency procedures included in the application to deal with tsunamis and hurricanes as required by 10 C.F.R. § 36.53(b)(9). That regulation provides that licensees have and follow emergency procedures for “[n]atural phenomena, including . . . flooding, or other phenomena as appropriate for the geographical location of the facility.”⁶³ As a contention of omission, the Petitioner’s contention meets all the requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi) and is admissible.

The contention sets forth the issue raised and indicates that the missing emergency procedures are required by the regulations, thereby meeting the dictates of 10 C.F.R. § 2.309(f)(1)(i) and (ii). Because the contention asserts that the regulatively required emergency procedures are not in the application, the issue raised is clearly within the scope of the proceeding and also material to the required regulatory compliance finding necessary for the grant of a license. The contention therefore meets the pleading requirements of 10 C.F.R. § 2.309(f)(1)(iii) and (iv). The contention references the discussion of its environmental contentions in which the Petitioner, supported by its expert and other exhibits, details the factual predicate for its assertion that the proposed location of the irradiator is at risk of damage from tsunamis and hurricanes. Thus, the contention provides the necessary statement of facts or expert opinion, as called for by 10 C.F.R. § 2.309(f)(1)(v), to support its assertion that the requirements of 10 C.F.R. § 36.53(b)(9) are applicable to the proposed site. Finally, as a contention of

⁶⁰Hearing Request at 15. While the Petitioner’s factually related environmental contentions challenging the agency’s compliance with the National Environmental Policy Act of 1969 were previously admitted in LBP-06-4, 63 NRC at 108-13, the proffered safety contention relies on a distinct legal requirement.

⁶¹ See Applicant Answer at 27-29.

⁶² Staff Answer at 11.

⁶³ 10 C.F.R. § 36.53(b)(9).

omission claiming that required information is missing from the application, the contention presents a genuine dispute on a material issue as required by 10 C.F.R. § 2.309(f)(1)(vi).

The Applicant's argument that there are no regulatory siting requirements governing irradiators is irrelevant to the question of admissibility of a contention claiming the lack of emergency procedures required by the regulations. Similarly, the Applicant's merit-based factual refutation of the risks from tsunamis and flooding at the proposed site are irrelevant at the contention admissibility stage of the proceeding. For its part, in arguing that the contention fails to provide a concise statement of alleged facts or expert opinion, the Staff overlooks the contention's effective incorporation of the factual foundation for the risks of tsunamis and hurricanes at the proposed site from the Petitioner's environmental contentions. Finally, the Staff's argument that 10 C.F.R. § 36.53(b)(9) does not mandate that the actual procedures be included in the application because 10 C.F.R. § 36.13(c) requires just an outline of such procedures once again misses the point. The contention alleges that the application includes no emergency procedures for tsunamis and hurricanes — a claim that necessarily encompasses the absence of outlines of such procedures,⁶⁴ and the Staff does not identify any portion of the application that satisfies 10 C.F.R. § 36.53(b)(9) or complies with 10 C.F.R. § 36.13(c). Thus, the Petitioner's sixth safety contention is admitted as a contention of omission, i.e., the application lacks emergency procedures for tsunamis and hurricanes as required by 10 C.F.R. § 36.53(b)(9).

F. Contention 7

The Petitioner's seventh safety contention alleges that the application "fails completely to address the likelihood and consequences of an air crash" involving the facility.⁶⁵ Relying upon the declaration of Dr. Resnikoff and 23 years of aircraft crash data for the Honolulu International Airport from the National Transportation Safety Board (NTSB), the contention asserts that the data show an extremely high accident rate for the proposed location of the Applicant's irradiator facility.⁶⁶ In addition to insisting that the probability and consequences of crashes must be addressed, the contention also claims that measures to mitigate the consequences of a crash must be considered.⁶⁷

As in its challenge to the Petitioner's sixth contention, the Applicant argues that the contention is inadmissible as an attack on the Commission's regulations.

⁶⁴ See *supra* pp. 414-15.

⁶⁵ Hearing Request at 15.

⁶⁶ See *id.*

⁶⁷ See *id.*

It asserts that the Commission did not include siting requirements in its 1993 rulemaking on irradiators and, in declining to do so, specifically considered and rejected a prohibition on placing irradiators at airports.⁶⁸ For its part, the Staff argues that the contention is inadmissible for failing to show a genuine dispute on a material issue of law or fact. According to the Staff, this is so because the contention fails to cite a specific regulatory provision requiring an analysis of aircraft crash probabilities and consequences or to make a showing that the emergency procedures required by 10 C.F.R. § 36.53(b) would be inadequate to address such an incident.⁶⁹

Contrary to the Applicant's argument, the absence of siting prohibitions in 10 C.F.R. Part 36, or the fact that irradiator regulations do not categorically prohibit locating an irradiator at an airport, does not turn the Petitioner's contention, which is focused upon the likelihood and consequences of an aircraft crash involving the Applicant's proposed facility, into an impermissible attack on the Commission's regulations. Indeed, as the Petitioner states in its reply to the Applicant's argument, the comments relied upon by the Applicant are from the Statement of Considerations to the Part 36 rulemaking discussing panoramic irradiators in which "[t]he radioactive sources . . . would be relatively protected from damage because they are generally contained within 6-foot thick reinforced-concrete walls and are encapsulated in steel."⁷⁰ As the Petitioner also points out, the sources in the Pa'ina Hawaii irradiator "would be in a pool with a liner consisting of 6 inches of concrete, with 1/4-inch steel on the inside and outside."⁷¹

More importantly, however, the lack of a regulatory prohibition against siting an irradiator at an airport does not affirmatively establish that any airport location satisfies the general requirement of 10 C.F.R. § 30.33(a)(2) that an irradiator facility be "adequate to protect health and minimize danger to life or property."⁷² Because the Applicant's facility must meet the general requirement of 10 C.F.R. § 30.33(a)(2) to be licensed, the contention is not inadmissible, as argued by the Staff, for failing to cite a regulatory provision specifically requiring an analysis of the probabilities and consequences of an aircraft crash.⁷³ Nor does the contention fail to present a genuine dispute, as claimed by the Staff, because it does not

⁶⁸ See Applicant Answer at 30-31.

⁶⁹ See Staff Answer at 11.

⁷⁰ 58 Fed. Reg. at 7726; see Petitioner Reply at 19.

⁷¹ Petitioner Reply at 19.

⁷² The requirements of 10 C.F.R. § 30.33(a)(2) specifically are made applicable to irradiators by 10 C.F.R. § 36.13(a).

⁷³ Although it would have been less confusing and better practice for the Petitioner's seventh contention to have referenced 10 C.F.R. § 30.33(a)(2) in the body of the contention, instead of in the preamble to the contentions, that approach in the context of this contention in which the regulatory standard is obvious does not render it inadmissible.

demonstrate that the emergency procedures required by 10 C.F.R. § 36.53(b) are inadequate to address an aircraft crash. In view of the Petitioner's sixth contention asserting the lack of emergency procedures for tsunamis and hurricanes in the application, it is curious that the Staff now would have the Petitioner demonstrate the inadequacy of procedures that apparently do not exist. In any event, the contention presents a genuine dispute on a material issue in accordance with 10 C.F.R. § 2.309(f)(1)(vi) by effectively asserting that the application fails to analyze aircraft crash probabilities and consequences. According to the contention, such analysis is necessary to comply with 10 C.F.R. § 30.33(a)(2) because of the frequency of aircraft crashes at the proposed site of the Applicant's pool irradiator.

The contention also meets all the other pleading requirements for admissible contentions. It specifically states an issue within the scope of the proceeding and material to a finding necessary for the grant of a license as required by 10 C.F.R. § 2.309(f)(1)(i), (iii) & (iv). With the declaration of its expert and the NTSB aircraft crash data for the Honolulu International Airport, the contention sets forth the basis for its challenge to the Applicant's failure to assess the probability and consequences of aviation accidents at the proposed irradiator site and provides the facts and expert opinion it intends to rely upon in compliance with 10 C.F.R. § 2.309(f)(1)(ii) & (v). The Petitioner's seventh safety contention is therefore admitted.

G. Contention 8

The Petitioner's eighth safety contention claims that the "application fails to address risks to the public and the environment associated with transporting Co-60 pencils to the proposed facility."⁷⁴ Paralleling the declaration of the Petitioner's expert, the contention claims that, because the proposed facility is not located in the continental United States, there are unique risks in transporting the radioactive sources by ship or by air that must be addressed.⁷⁵ The Applicant and the Staff both argue that the contention is beyond the scope of the proceeding.⁷⁶

The scope of a proceeding generally is defined by the Commission's notice of opportunity for hearing.⁷⁷ Here, the hearing notice indicates that the proceeding concerns the Pa'ina Hawaii application "to build and operate a commercial pool

⁷⁴ Hearing Request at 16.

⁷⁵ See *id.*

⁷⁶ See Applicant Answer at 31; Staff Answer at 11-12.

⁷⁷ See *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 118 (1995); *Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 426 (1980); *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170-71 (1976).

type industrial irradiator.’’⁷⁸ The notice does not state that the proceeding involves the subject of the transport of Co-60 sources to and from the Applicant’s proposed facility. Indeed, the transportation of licensed material such as the Co-60 sources used in an irradiator is governed by the Commission’s regulations in 10 C.F.R. Part 71 and involves separate entities and licenses. Thus, the Applicant and the Staff are correct that the eighth safety contention is beyond the scope of the proceeding in contravention of 10 C.F.R. § 2.309(f)(1)(iii) and is inadmissible.

H. Contention 9

The Petitioner’s ninth safety contention is entitled ‘‘Inadequate Provision for Facility Security.’’⁷⁹ The contention claims that (1) Co-60 is an attractive target for terrorists to use to make dirty bombs; (2) nuclear facilities are targets of the Al Qaeda organization; (3) if Co-60 were stolen from the proposed irradiator or if the facility were attacked, Co-60 could be released to the environment causing adverse health effects; and (4) the Applicant proposes to place a major sabotage target into the local community without adequate provision to address threats to the community.⁸⁰ These assertions are supported by the declarations of Dr. Resnikoff and Dr. Gordon R. Thompson.⁸¹ After obtaining access to certain nonpublic, proprietary portions of the Pa’ina Hawaii application, the Petitioner filed a supplemental reply in which it asserts that certain of the Applicant’s security measures are inadequate to protect the Co-60 sources from terrorist attack. Hence, the Petitioner claims that the application violates the requirements of 10 C.F.R. § 30.33(a)(2) that the facility ‘‘protect health and minimize danger to life and property.’’⁸²

In its response to the Petitioner’s supplemental reply, the Applicant argues that the Petitioner’s contention meets none of the requirements of 10 C.F.R.

⁷⁸ 70 Fed. Reg. 44,396 (Aug. 2, 2005).

⁷⁹ Hearing Request at 16.

⁸⁰ *See id.*

⁸¹ *See* Resnikoff Decl. ¶¶ 21-22; Hearing Petition, Declaration of Dr. Gordon R. Thompson in Support of Petitioner’s Areas of Concern (Oct. 3, 2005) ¶¶ V-1 to -6, VI-1 to -3 [hereinafter Thompson Decl.]. Dr. Thompson is a mathematician who is the Executive Director of the Institute for Resource and Security Studies in Cambridge, Massachusetts. According to his declaration, Dr. Thompson is also a research professor at the George Perkins Marsh Institute, Clark University, Worcester, Massachusetts and, since 1977, a significant part of his work has involved technical analysis of safety, security, and environmental issues at nuclear facilities. *See* Thompson Decl. ¶¶ I-1, II-2.

⁸² *See* Petitioner Supplemental Reply at 1-2 (quoting 10 C.F.R. § 30.33(a)(2)).

§ 2.309(f)(1)(i)-(vi).⁸³ For its part, the Staff claims the contention fails to meet the mandates of section 2.309(f)(1)(v) and (vi).⁸⁴

The Petitioner's ninth safety contention challenging certain security measures at the Applicant's irradiator facility is beyond the scope of this proceeding and thus fails to comply with 10 C.F.R. § 2.309(f)(1)(iii). The security requirements for the Pa'ina Hawaii facility are not applicable until the Applicant receives a license for the possession and use of byproduct material at the irradiator. At that time, the Commission's "Order Imposing Increased Controls,"⁸⁵ or a like order issued to the new licensee, will impose the security requirements set forth in a nonpublic attachment. In this regard, the Commission order states that:

[T]he Commission has determined that certain additional controls are required to be implemented by Licensees to supplement existing regulatory requirements in 10 CFR 20.1801 and 10 CFR 20.1802, in order to ensure adequate protection of, and minimize danger to, the public health and safety. Therefore, the Commission is imposing the requirements set forth in Attachment B on radioactive materials Licensees who possess, or have near term plans to possess, radionuclides of concern at or above threshold limits, identified in Table 1. These requirements, which supplement existing regulatory requirements, will provide the Commission with reasonable assurance that the public health and safety continues to be adequately protected. These requirements will remain in effect until the Commission modifies its regulations to reflect increased controls.⁸⁶

Additionally, the order specifically will permit any person adversely affected by it to request a hearing.⁸⁷ Thus, the Commission's security order contemplates that challenges to the facility features asserted in the ninth contention be raised, if appropriate,⁸⁸ only in response to the order imposing increased security controls. That order will be issued subsequent to issuance of the license. Prior to that time, such a challenge is premature because the requirements to be imposed by the Commission's security order, in contrast to requirements mandated by a current

⁸³ See Pa'ina Hawaii, LLC's Opposition to Petitioner's January 26, 2006 Supplemental Reply (Mar. 15, 2006).

⁸⁴ See Staff Response to Petitioner's Supplemental Reply in Support of Its Request for Hearing (Mar. 16, 2006).

⁸⁵ See In the Matter of All Licenses Authorized to Possess Radioactive Material Quantities of Concern, Order Imposing Increased Controls (Effective Immediately), 70 Fed. Reg. 72,128 (Dec. 1, 2005).

⁸⁶ *Id.* at 72,129.

⁸⁷ See *id.*

⁸⁸ See *Bellotti v. NRC*, 725 F.2d 1380 (D.C. Cir. 1983); see also *State of Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 404 (2004) (prohibiting a challenge to an enforcement order in which the Petitioner contends that the order needs strengthening).

regulation, are not yet applicable. Accordingly, the Petitioner's contention is not within the scope of the current proceeding and is inadmissible.

I. Contention 10

The Petitioner's tenth safety contention revisits the issues of transportation and security, claiming that the application fails to provide adequate provisions for protecting Co-60 sources in transit to the facility.⁸⁹ Like the Petitioner's eighth contention, this contention is inadmissible because the subject of transportation of Co-60 sources is beyond the scope of the proceeding. Accordingly, the tenth contention fails to meet the requirement of 10 C.F.R. § 2.309(f)(1)(iii).

J. Contention 11

The Petitioner also proffered what it labels an eleventh contention asserting that the Applicant's level of financial assurance for decommissioning, admittedly meeting the requirements of 10 C.F.R. § 30.35(d), is nonetheless inadequate to ensure protection of the public health and safety. The so-called contention then asserts that, upon its admission as a party to the proceeding, the Petitioner intends to file a petition pursuant to 10 C.F.R. § 2.335(b) seeking a waiver of section 30.35(d). In conceding that the Applicant has complied with the Commission's decommissioning financial assurance rule and indicating that it will seek a rule waiver, the Petitioner implicitly recognizes that 10 C.F.R. § 2.335 prohibits challenges to the Commission's regulations. Thus, in spite of its label, the Petitioner's eleventh so-called contention is not a contention and, even if so considered, is not admissible.

III. CONCLUSION

For the foregoing reasons, the Petitioner's fourth, sixth, and seventh safety contentions are admitted, while the Petitioner's first, second, fifth, eighth, ninth, tenth, and eleventh safety contentions are not admitted. The Petitioner has withdrawn proffered safety contentions three and twelve.

Pursuant to 10 C.F.R. § 2.311, an appeal of this Memorandum and Order and our earlier January 24, 2006 Memorandum and Order, LBP-06-4, ruling on the Petitioner's standing and environmental contentions, may be filed within ten (10) days of service of this Memorandum and Order by filing a notice of appeal and an accompanying supporting brief. Any party opposing an appeal may file a brief

⁸⁹ See Hearing Request at 17.

in opposition to the appeal. All briefs must conform to the requirements of 10 C.F.R. § 2.341(c)(2).

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD*

Thomas S. Moore, Chairman
ADMINISTRATIVE JUDGE

By G. P. Bollwerk for:
Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

Rockville, Maryland
March 24, 2006

*Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to counsel for (1) Applicant Pa'ina Hawaii, LLC; (2) Petitioner Concerned Citizens of Honolulu; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

J.E. Dyer, Director

In the Matter of

Docket No. 50-271
(License No. DPR-28)

ENTERGY NUCLEAR VERMONT
YANKEE, LLC, and ENTERGY
NUCLEAR OPERATIONS, INC.
(Vermont Yankee Nuclear Power
Station)

March 4, 2006

The Petitioner requested that the U.S. Nuclear Regulatory Commission (NRC) issue an emergency order for a temporary closure or derating of the Vermont Yankee Nuclear Power Station (VY) as a result of flooding and storm damage to the city of Keene, the town of Hinsdale, and other portions of New Hampshire that are part of existing evacuation routes for VY, during local flooding that occurred on October 8 and 9, 2005.

The final Director's Decision on this petition was issued on March 4, 2006. The final DD addresses the requested actions as follows: The NRC Staff, in consultation with the Federal Emergency Management Agency, confirmed that during the flooding on October 8 and 9, 2005, near VY, the State of New Hampshire had established and coordinated potential alternate evacuation routes in the unlikely event of an emergency at VY and that shutting down or derating the station was not warranted. Therefore, Petitioner's request of October 11, 2005, to shut down or derate VY was denied. In addition, the NRC Staff found that the safe operation of VY was not threatened by the flooding and that the local emergency response organizations could implement protective actions if necessary, to protect public health and safety, in accordance with their emergency procedures, regardless of local severe weather conditions or other natural disasters coincident with an emergency at VY.

Accordingly, NRC denied the Petitioner's requests as stated above.

DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

I. INTRODUCTION

By letter dated October 11, 2005, Mr. Jonathan M. Block (the Petitioner) filed a petition pursuant to Title 10 of the *Code of Federal Regulations* (10 C.F.R.), section 2.206. The Petitioner requested that the U.S. Nuclear Regulatory Commission (NRC) require a temporary closure or derating of Vermont Yankee Nuclear Power Station (Vermont Yankee). As the basis for this request, the Petitioner stated that evacuations would be impossible as a result of extensive damage caused by recent storms and flooding during the weekend of October 8 and 9, 2005, to the city of Keene, the town of Hinsdale, and other locations in New Hampshire that are part of existing evacuation routes for Vermont Yankee in an emergency event and within the effluent pathway.

Federal oversight of radiological emergency planning and preparedness for commercial nuclear facilities involves both the Department of Homeland Security Federal Emergency Management Agency (DHS/FEMA) and the NRC. Consistent with President Carter's directive in December 1979 and the longstanding memorandum of understanding between DHS/FEMA and the NRC, DHS/FEMA takes the lead in reviewing and assessing offsite planning and response and in assisting state and local governments, while the NRC reviews and assesses onsite planning and response. Using DHS/FEMA's input, the NRC then makes a determination regarding the overall state of emergency preparedness.

The NRC became aware of the flooding situation on October 12, 2005, by means of an e-mail from the Licensee for Vermont Yankee. This e-mail forwarded a response from the State of New Hampshire that identified the flooding impacts and the availability of alternate routes as contingency actions should an emergency at Vermont Yankee create a need for a public evacuation. On October 18, 2005, the NRC learned through discussions with DHS/FEMA that it had concluded, based on information received from the State of New Hampshire, that all evacuation routes in New Hampshire and the roads to the reception center in Keene were open and accessible. It was also learned that only one of the many evacuation routes designated by the Vermont Yankee emergency planning was not available for a period of time during the flooding conditions and that an alternate accessible route was available.

Mr. James Shea, the NRC Petition Manager, in a telephone call on October 18, 2005, informed the Petitioner that his emergency request for temporary plant closure or derating was denied, based on the DHS/FEMA evaluation. In that telephone call, the Petitioner raised additional issues concerning whether DHS/FEMA and the State of New Hampshire have plans for an evacuation if an event were to occur at Vermont Yankee simultaneously with a natural disaster such as the

recent flooding. Specifically, the Petitioner had concerns regarding how people would evacuate from the city of Keene and the town of Hinsdale if roads were flooded, and whether there are alternative assembly points and decontamination centers for people who normally would evacuate through flooded areas. Finally, the Petitioner asked what the NRC is doing to ensure that contingency evacuation plans are in place.

II. DISCUSSION

A. Background

Prior to issuing a license for a nuclear power plant, the NRC is required by statute and regulation to determine that there is reasonable assurance that the public health and safety are adequately protected. Although the NRC has stringent requirements related to facility siting, design, construction, and operation, adequate emergency preparedness is also a prudent, essential aspect of the protection of public health and safety. The NRC bases its determination regarding adequate preparedness on a review of the licensee's onsite preparedness and of DHS/FEMA's findings regarding the adequacy of the offsite preparedness. If, at any time, there is not reasonable assurance that adequate public protective measures can and will be implemented, corrective actions are required to return emergency preparedness to an acceptable level of effectiveness.

The Plume Exposure Pathway Emergency Planning Zone (EPZ) is the area within an approximate 10-mile radius surrounding the Vermont Yankee Nuclear Power Station. State and local offsite response organizations (OROs) have developed plans to implement protective measures for the people within this zone. Vermont communities within this EPZ include the towns of Brattleboro, Dummerston, Guilford, Halifax, and Vernon. Neighboring states have towns in this EPZ as well. Those towns in Massachusetts include Bernardston, Colrain, Gill, Greenfield, Leyden, Northfield, and Warwick. The towns of Chesterfield, Hinsdale, Richmond, Winchester, and the Westport section of Swanzey are in the New Hampshire portion of this EPZ. In the event of a serious accident at Vermont Yankee, State and local officials may recommend to people residing within this EPZ to take protective actions such as sheltering-in-place or evacuation.

The state and local OROs have developed and maintain detailed plans and procedures for responding to an emergency at Vermont Yankee. These plans and procedures establish a staged response capability through a trained response organization, defined organizational roles, and the means and resources for implementing response functions, including communications, notification of the public, protective measures, reception centers, transportation resources, traffic and access control, and radiological monitoring. DHS/FEMA evaluates and approves these state and local ORO plans. Full-scale exercises involving the

facility operator, state and local OROs, are evaluated by DHS/FEMA and the NRC, and are conducted biennially. DHS/FEMA has determined that there is reasonable assurance that appropriate public protective measures can and will be taken in the event of an emergency at Vermont Yankee.

Immediately upon becoming aware of an off-normal plant condition, the Licensee is required to take action to assess the condition and, if warranted, declare one of four emergency classification levels. Upon declaration of an emergency, the Licensee notifies state and local OROs of the emergency condition, thereby enabling the OROs to take actions in accordance with their emergency procedures. If the incident has resulted or could result in significant release of radioactive material, the Licensee will make protective action recommendations (PARs) to the state and local government OROs. The state ORO's will consider the Licensee's PAR and make a recommendation to the governor, who will issue the state's recommendation to the public. The local OROs then implement the recommendation (e.g., sound sirens, issue emergency alert system (EAS) messages, establish traffic control points, establish reception centers, provide transportation for persons without transport, etc). The NRC monitors the actions of the nuclear power plant to ensure that the Licensee's response actions and PARs are appropriate.

Nuclear power plants are required to be designed to withstand external events such as hurricanes, tornadoes, earthquakes, tsunamis, and flooding, as appropriate to the site. As long as the plant is operating within the conditions of its license and technical specifications, there is no safety reason for the plant to shut down during such external events. Accordingly, licensees are not required to shut down their plants solely because of temporary effects of severe weather or flooding offsite.

The local ORO plans are required by DHS/FEMA to demonstrate the capability to contend with unexpected events which may impede an evacuation route. This capability was demonstrated when the State of New Hampshire was able to develop alternate routes when one of the evacuation route bridges was damaged by the flooding during the weekend of October 8 and 9, 2005. This route was subsequently repaired shortly after the flooding subsided. Although normally intended to address situations such as vehicle failures or accidents, these contingency provisions provide a basis to address conditions such as flooded roads or impassible bridges, should they occur simultaneously with a radiological emergency at Vermont Yankee.

B. Staff's Response to the Petitioner's Letter

The Petitioner's emergency request of October 11, 2005, to shut down or derate Vermont Yankee was denied based on the DHS/FEMA evaluation regarding provisions for alternate evacuation routing if an evacuation had become necessary

while primary evacuation routes were impassible, and because safe operation of Vermont Yankee was not threatened by flooding.

Nuclear power plants are engineered to incorporate design features that provide layers of protection against failure, referred to as defense-in-depth. Emergency plans are one such defense-in-depth measure. Emergency plans come into play only in the rare circumstance that engineered design features and human capacity to take corrective action have both failed to avert a serious event. Emergency preparedness is a risk-management tool, and protective actions are appropriate only if the risk to the public would be reduced by those actions. If evacuation would place the public at significant risk of harm, state OROs are expected to consider recommending sheltering-in-place rather than evacuation.

C. Staff's Response to Other Concerns from the Petitioner

During the October 18, 2005, telephone call, the Petitioner expressed the following concerns related to emergency evacuation planning for Vermont Yankee:

1. The Petitioner Requested Information Regarding How DHS/FEMA and the State of New Hampshire Coordinate Evacuation Plans

The state and local OROs develop emergency plans and, in the event of an emergency, implement those plans. DHS/FEMA's role is to assist OROs with the development of those plans and to evaluate the adequacy of the plans. During an emergency event, DHS/FEMA's role is to provide support to the state and local OROs in implementing their plans. Command and control of the response remains with the state and local OROs, as directed by the governor in each state. This is appropriate, given the sovereign nature of each state and the first-responder role of each state and of the local OROs. DHS/FEMA does not have a first-responder role and would provide support only as requested by the state.

In EPZs with multiple states, each state provides for the safety of its residents. The implementation of protective measures is, by necessity, coordinated. For example, sirens close to the boundaries of each state can be heard in the adjacent state. EAS messages are broadcast on radio stations that can be heard in all states. The predesignated primary evacuation routes are generally established in a manner that minimizes the need for evacuees from one state to enter another state. Coordination of evacuation routes needs to occur only if the planning calls for the residents in one state to enter another state. Traffic control points maintain this routing. Coordination would occur if alternate evacuation routes needed to be identified as a contingency, as was done when the State of New Hampshire sought to identify an alternative evacuation route for Hinsdale that would direct evacuees west on Route 119 into Brattleboro, Vermont.

2. *The Petitioner Requested Details on How Keene and Hinsdale Would Be Evacuated During a Flood Condition Coincident with a Vermont Yankee Event*

In the unlikely occurrence of a flood coincident with an emergency at Vermont Yankee, the state and local OROs within the EPZ would implement their respective emergency plans and take the actions proscribed therein. If the event caused the Licensee to make a PAR, the state and local OROs would consider and implement the PAR as described in their emergency plans. In the event that the flood was severe enough to block the primary evacuation routes from Hinsdale, alternative routes would be identified and implemented. The state and local ORO plans do not predesignate alternative evacuation routes. However, these plans provide an adequate basis from which to identify alternative routes as conditions require. EAS messages, public information messages via news media, and staged traffic control points would redirect evacuees as necessary. As discussed previously, if an evacuation would place the public at significant risk of harm, State OROs are expected to consider recommending sheltering-in-place rather than evacuation.

For the flooding of October 8 and 9, 2005, the impassible evacuation routes from Hinsdale were Route 119 east of the junction with Route 63, and Route 63 north of the junction with Route 119. The State identified alternative routing via Route 119 west and north, crossing the river at Brattleboro, Vermont; and via Route 63 south to Northfield, Massachusetts (or then back into New Hampshire via Route 10). Although this routing may not be as optimum as the primary routing, the routing is a reasonable alternative given the low probability of severe flooding coincident with an emergency at Vermont Yankee that would warrant offsite protective actions.

The City of Keene is outside the EPZ and would not be expected to evacuate due to an emergency at Vermont Yankee. Evacuation solely in response to flooding is at the discretion and direction of city officials and is not a regulatory responsibility of the NRC.

3. *The Petitioner Requested Details on Alternate Assembly and Decontamination Facilities When Routes Are Affected by Floods*

The state and local ORO emergency plans identify reception centers which serve as locations to monitor, decontaminate as necessary, and register evacuees. The emergency plans and procedures provide for trained personnel to perform these functions and equipment necessary to perform these functions, all of which can be readily relocated to an alternate facility if necessary. These plans do not predesignate alternative reception centers. However, these plans provide an adequate basis to enable the local OROs to identify alternative facilities as

conditions require. EAS messages, public information messages via news media, and staged traffic control points would redirect evacuees as necessary. This reliance on ad hoc identification of alternatives is reasonable given the low probability of severe flooding coincident with an emergency at Vermont Yankee severe enough to warrant offsite protective actions.

4. The Petitioner Requested Details on What the NRC Is Doing To Ensure That Contingency Planning Is in Place To Address the Potential of an Event at Vermont Yankee Coupled with a Natural Disaster Such as Flooding

Nuclear power plant emergency preparedness emphasizes prudent risk-reduction measures. The basic principle of the NRC and DHS/FEMA regulations is that there should be core planning coupled with sufficient planning flexibility to develop ad hoc responses to those very serious low-probability accidents which could affect the public. DHS/FEMA has determined that the state and local ORO emergency plans provide reasonable assurance that public protective measures can and will be taken in the event of an emergency at Vermont Yankee, and that these plans provide a basis for implementing ad hoc contingency measures when the preplanned measures are impeded for any reason. The State of New Hampshire adequately demonstrated this capability with regard to the flooding of October 8 and 9, 2005.

The NRC and DHS/FEMA have developed a procedure to address the offsite emergency preparedness readiness in the wake of a significant natural disaster. This procedure has been used following hurricanes when storm-caused damage to infrastructure raised concerns regarding the ability of state and local OROs to implement protective actions for the public. However, this procedure would not have been implemented in the wake of the flooding of October 8 and 9, 2005, since the impact was not widespread and since state and local OROs were capable of readily identifying alternate evacuation routes.

III. CONCLUSION

NRC regulations require nuclear power plants to be designed and operated to reasonably assure the public health and safety. The NRC also requires its nuclear power plant licensees to establish and implement acceptable emergency plans. The Vermont Yankee emergency plans have action levels that require the State and the NRC to be notified such that the State emergency plans can be activated in a timely manner to protect the population in the EPZ. The state OROs would implement protective actions in accordance with their emergency procedures.

During the flooding in New Hampshire on October 8 and 9, 2005, the State

had established and coordinated potential alternate evacuation routes in the event of an accident at Vermont Yankee. In addition, safe operation of the station was not threatened by the flooding. Accordingly, the NRC Staff concluded that there was no threat to the public health and safety, and that shutting down or derating the station was not warranted. Therefore, the Petitioner's emergency request was denied.

As provided in 10 C.F.R. § 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the Decision will constitute the final action of the Commission 25 days after the date of the Decision unless the Commission, on its own motion, institutes a review of the Decision within that time.

FOR THE NUCLEAR REGULATORY
COMMISSION

J.E. Dyer, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 4th day of March 2006.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 70-7004

USEC INC.
(American Centrifuge Plant)

April 3, 2006

CONTENTIONS: ADMISSIBILITY

The Commission's contention requirements are deliberately strict, and the Commission will reject any contention that does not satisfy these requirements. In NRC practice, "[m]ere 'notice pleading' does not suffice." Our rules call for "a clear statement of the basis for the contentions and the submission of supporting information and references to specific documents and sources that establish the validity of the contention."

RULES OF PRACTICE: PERMITTED PLEADINGS

The Commission's regulations governing appeals from the denial of intervention (10 C.F.R. § 2.311) provide for a notice of appeal with a supporting brief, and for a brief opposing the appeal, but do not provide for reply briefs.

RULES OF PRACTICE: REPLY BRIEFS

The Commission will not permit, in a reply brief, the filing of new arguments or new legal theories that opposing parties have not had the opportunity to address.

REGULATIONS: INTERPRETATION

Pursuant to NRC regulation (10 C.F.R. § 51.45(b)) “[t]he environmental report shall contain . . . a description of the environment *affected*,” with impacts on the environment “discussed in proportion to their significance.” This regulation does not require a discussion of *unaffected* areas or sites.

NATIONAL HISTORIC PRESERVATION ACT: INTERPRETATION

While it is true that no nomination or formal determination of eligibility is necessary to trigger a National Historic Preservation Act review, a site must be within the area of potential effects and the project must affect the site to trigger a review of that site.

NATIONAL ENVIRONMENTAL POLICY ACT

CONTENTIONS: BASIS; AMENDMENT OF CONTENTIONS

Under the Commission’s regulations, for issues arising under the National Environmental Policy Act, a petitioner must file contentions based on the applicant’s environmental report. The petitioner may amend those contentions or file new contentions if the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, differs significantly from the data or conclusions in the applicant’s documents.

CONTENTIONS: MOOTNESS

Where a contention based on an applicant’s environmental report is “superseded by the subsequent issuance of licensing-related documents” — whether an environmental impact statement or an applicant’s response to a request for additional information — the contention must be “disposed of or modified.” Thus, where a contention alleges the omission of particular information or an issue from an application, and the information is later supplied by the applicant or considered by the NRC Staff in an environmental impact statement, the contention “is moot.”

NATIONAL HISTORIC PRESERVATION ACT: COMPLIANCE

The agency granting a license has the obligation to comply with the National Historic Preservation Act. Any contractual provision that purports to shift National Historic Preservation Act compliance responsibility from a third party to

the prospective licensee cannot affect the NRC's statutory obligation to comply with that Act with respect to the licensing of the proposed project.

NATIONAL ENVIRONMENTAL POLICY ACT: INTERPRETATION

NATIONAL HISTORIC PRESERVATION ACT: INTERPRETATION

Under the National Environmental Policy Act, the consideration of alternatives is an integral part of the application process from the outset, with no preconditions. The National Historic Preservation Act also requires the NRC Staff to examine alternatives. But unlike the National Environmental Policy Act requirement, the National Historic Preservation Act requirement comes into play *only if* the project will have an adverse effect on historic properties, and *only after* that determination is made. In short, an adverse effect is a required precondition to the consideration of alternatives under the National Historic Preservation Act.

MEMORANDUM AND ORDER

In LBP-05-28,¹ the Atomic Safety and Licensing Board ("Board") considered proposed contentions filed in two petitions to intervene² in this proceeding, which examines an application filed by USEC, Inc. ("USEC"). USEC has applied for a license to construct and operate the American Centrifuge Plant (the "USEC facility" or the "project"), a proposed uranium enrichment facility using the gas centrifuge process. USEC plans to build the project at its existing Piketon, Ohio property.

The Board found that Petitioner Geoffrey Sea did not submit an admissible contention and denied his petition to intervene in the proceeding.³ Mr. Sea has appealed pursuant to 10 C.F.R. § 2.311.⁴ Both USEC⁵ and the NRC Staff⁶

¹ 62 NRC 585 (2005).

² The Commission previously determined that both Petitioners had standing. *See* CLI-05-11, 61 NRC 309, 310 (2005).

³ The Board also found that Portsmouth/Piketon Residents for Environmental Safety and Security (PRESS) submitted no admissible contentions, and denied PRESS's intervention petition. We are addressing PRESS's appeal of LBP-05-28 in a separate decision today.

⁴ Brief of Geoffrey Sea on Appeal of LBP-05-28 (Oct. 24, 2005) ("Sea Appeal").

⁵ USEC Inc. Brief in Response to Brief of Geoffrey Sea on Appeal of LBP-05-28 (Nov. 2, 2005) ("USEC Response").

⁶ NRC Staff's Brief in Opposition to Geoffrey Sea Appeal of LBP-05-28 (Nov. 3, 2005) ("NRC Staff Response").

responded to Mr. Sea's appeal. Subsequently, Mr. Sea filed a reply brief,⁷ accompanied by a motion for leave to file this reply brief.⁸ USEC filed an answer to Mr. Sea's motion.⁹

We agree with the Board that Mr. Sea's contentions are inadmissible, and therefore affirm the Board's decision.

I. BACKGROUND

A. Regulatory Framework

To intervene in a Commission proceeding, a person must file a petition for leave to intervene in accordance with 10 C.F.R. § 2.309(a). The petition must demonstrate standing under 10 C.F.R. § 2.309(d) and must proffer at least one admissible contention as required by 10 C.F.R. § 2.309(f)(1)(i)-(vi). For each contention, the petition must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and
- (vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.¹⁰

⁷ Geoffrey Sea's Reply Brief on Appeal of LBP-05-28 (Nov. 8, 2005) ("Reply Brief").

⁸ Geoffrey Sea's Motion for Leave To Answer the Briefs of USEC and NRC Staff on Petitioner's Appeal of LBP-05-28 (Nov. 8, 2005) ("Motion for Leave To Reply").

⁹ USEC Inc. Answer to Geoffrey Sea's Motion for Leave To Answer the Briefs of USEC and NRC Staff on Petitioner's Appeal of LBP-05-28 (Nov. 10, 2005) ("Answer to Motion for Leave To Reply").

¹⁰ 10 C.F.R. § 2.309(f)(1)(i)-(vi).

These requirements are deliberately strict,¹¹ and we will reject any contention that does not satisfy the requirements.¹² In NRC practice, “[m]ere ‘notice pleading’ does not suffice.”¹³ Our rules call for “a clear statement as to the basis for the contentions and the submission of . . . supporting information and references to specific documents and sources that establish the validity of the contention.”¹⁴

Compliance with the National Historic Preservation Act (NHPA)¹⁵ is also at issue in this proceeding. Section 106 of the NHPA requires licensing agencies like the NRC to “take into account the effect” of the licensed undertaking on historic properties:

[T]he head of any Federal department or independent agency having authority to license any undertaking shall, . . . prior to the issuance of any license, . . . take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register [of Historic Places]. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation established under part B of this subchapter a reasonable opportunity to comment with regard to such undertaking.¹⁶

Government-wide implementing regulations provide the details of the section 106 process.¹⁷ These regulations define a project requiring a Federal license as an “undertaking.”¹⁸ An undertaking has “[a]n adverse effect [if it] may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register.”¹⁹

An agency should coordinate the section 106 process “with the overall planning schedule for the undertaking and with any reviews required under other authorities such as the National Environmental Policy Act [NEPA].”²⁰ An agency may use information developed for such reviews to satisfy the requirements of the

¹¹ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *petition for reconsideration denied*, CLI-02-1, 55 NRC 1 (2002). *See also Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP site), CLI-05-29, 62 NRC 801, 808 (2005), citing *Millstone*, CLI-01-24, 54 NRC at 358.

¹² The Board’s decision provides a brief review of NRC case law on the application of the contention requirements. *See* LBP-05-28, 62 NRC at 594-98.

¹³ *Clinton*, CLI-05-29, 62 NRC at 808, citing *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428 (2003).

¹⁴ *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991). *Accord Clinton*, CLI-05-29, 62 NRC at 808.

¹⁵ 16 U.S.C. § 470 *et seq.*

¹⁶ 16 U.S.C. § 470f.

¹⁷ 36 C.F.R. § 800.1 *et seq.*

¹⁸ 36 C.F.R. § 800.16(y).

¹⁹ 36 C.F.R. § 800.5(a)(1).

²⁰ 36 C.F.R. § 800.3(b).

section 106 process.²¹ If its process meets certain conditions, an agency may use the NEPA process in lieu of the procedures set forth in 36 C.F.R. §§ 800.3 through 800.6 to satisfy the NHPA requirements.²² The NRC Staff's practice is to make this "process" substitution, using the NEPA process to identify, analyze, and document any cultural impacts of a project as part of its environmental review. The NRC Staff's environmental impact statement typically contains the Staff's documentation of its identification and analysis of cultural impacts.

B. Board Decision

Before the Board, Mr. Sea filed ten proposed contentions, mostly focused on claims that USEC and the NRC Staff had not adequately taken into account the project's effects on local cultural resources and historic sites.²³ The Board rejected all ten proposed contentions, chiefly on the ground that Mr. Sea had not provided sufficient factual or expert support to establish a material issue of fact or law.²⁴ Thus, the Board rejected Mr. Sea's claims that USEC or the NRC Staff had overlooked local cultural sites, minimized the project's adverse effects, ignored legal deficiencies in USEC's "collaborative arrangement" with the Department of Energy (DOE), and failed to consider alternatives to the USEC proposal. The Board also pointed out that, despite Mr. Sea's claims of "omitted" NHPA property identifications in USEC's environmental report, the NRC Staff in fact is examining these same properties, thus "curing" his "omissions" claim.²⁵ The Board found other contentions, centering on alleged failures by DOE to comply with the NHPA, outside the scope of this licensing proceeding.²⁶

On appeal, Mr. Sea challenges the Board's disposition of six particular contentions.²⁷

II. ANALYSIS

A. Preliminary Matter — Reply Brief and Accompanying Motion

The Commission's regulations governing appeals from the denial of intervention provide for a notice of appeal with a supporting brief, and for a brief opposing

²¹ *Id.*

²² 36 U.S.C. § 800.8(c).

²³ *See* LBP-05-28, 62 NRC at 622-32.

²⁴ *See, e.g., id.* at 624, 625, 626, 627, 628, 630.

²⁵ *See id.* at 624-25 & n.149.

²⁶ *See id.* at 628-29, 630.

²⁷ Today's Order does not discuss the four contentions Mr. Sea is not pursuing on appeal.

the appeal.²⁸ The regulations do not provide for replies; even so, Mr. Sea filed one. Mr. Sea accompanied his reply brief with a motion seeking leave to file it.

We grant Mr. Sea's motion for leave to reply, but only in part. The Commission will not permit, in a reply, the filing of new arguments or new legal theories that opposing parties have not had an opportunity to address.²⁹ Many of the factual and legal issues raised in Mr. Sea's reply brief are new and should have been raised in his original appeal brief. And, as USEC points out, Mr. Sea failed to comply with our procedural regulations requiring consultation with other parties prior to filing a motion.³⁰ The Board has already granted Mr. Sea substantial leeway in this proceeding with regard to procedural matters.³¹ We will consider Mr. Sea's reply brief arguments insofar as they genuinely "reply" to arguments raised in the other participants' briefs. We will not consider the reply brief's new arguments.

B. Appealed Contentions

Mr. Sea fails to show errors of law or abuse of discretion³² in the Board's decision rejecting his proposed contentions. Our strict contention pleading rule fosters fair and meaningful adjudicatory hearings:

First, it focuses the hearing process on real disputes susceptible of resolution in an adjudication. . . . Second, the rule's requirement of detailed pleadings puts other parties in the proceeding on notice of the Petitioners' specific grievances and thus gives them a good idea of the claims they will be either supporting or opposing. Finally, the rule helps to ensure that full adjudicatory hearings are triggered only by

²⁸ 10 C.F.R. § 2.311.

²⁹ "In Commission practice, and in litigation practice generally, "new arguments may not be raised for the first time in a reply brief." *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225, *petition for reconsideration denied*, CLI-04-35, 60 NRC 619 (2004) (citing *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 261 (1996)).

³⁰ See Answer to Motion for Leave To Reply at 4, citing 10 C.F.R. § 2.323(b).

³¹ For example, in reaching its decision in LBP-05-28, the Board considered the untimely second, nonidentical, petition to intervene filed by Mr. Sea because of his *pro se* status. 62 NRC at 592-93. The Board also considered late-filed exhibits to Mr. Sea's amended contentions because of his *pro se* status. *Id.* at 621-22.

³² The Commission affirms Board decisions on the admissibility of contentions where the appellant "points to no error of law or abuse of discretion." *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637 (2004) (citing *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-21, 52 NRC 261, 265 (2000)).

those able to proffer at least some minimal factual and legal foundation in support of their contentions.³³

Mr. Sea's proposed contentions lack factual and legal support; admission of his contentions would be inconsistent with our pleading requirements. We therefore affirm the Board decision, and reject all six of Mr. Sea's remaining contentions — both for the reasons given by the Board and for the additional reasons we give below.

1. Assessment of Cultural Resources

a. Sea Contention No. 1.1

USEC has failed to identify cultural resources potentially impacted by the American Centrifuge Plant.

On appeal, Mr. Sea reiterates his complaint that USEC's environmental report omitted the historic and prehistoric sites he believes should have been listed.³⁴ Mr. Sea has not shown that USEC's environmental report was required to list the sites Mr. Sea specifies. As the Board correctly stated,³⁵ USEC's obligation arose under an NRC regulation specifying that "[t]he environmental report shall contain . . . a description of the environment *affected*,"³⁶ with impacts on the environment "discussed in proportion to their significance."³⁷ The NRC regulation does not require a discussion of *unaffected* areas or sites. Similarly, the NHPA itself does not require the evaluation of *unaffected* sites whether or not they are historic.³⁸ Here, the Board reasonably found that Mr. Sea had offered only "speculation,"

³³ *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999).

³⁴ Sea Appeal at 8.

³⁵ *Id.*

³⁶ 10 C.F.R. § 51.45(b) (emphasis added).

³⁷ 10 C.F.R. § 51.45(b)(1).

³⁸ Mr. Sea's citation to 36 C.F.R. § 800.4(d)(2) (Sea Appeal at 6) is inapposite; this subsection applies when the agency official finds that historic properties may be affected by the project. That has not occurred here. Mr. Sea ignores 36 C.F.R. § 800.4(d)(1), which applies when the agency official finds that no historic properties are affected. Here, the NRC Staff considered information obtained from interested members of the public through the NRC's scoping process (Draft Environmental Impact Statement (DEIS) at p. 1-31, § 1.5.6.2), defined the area of potential effects (DEIS at p. 4-5, § 4.2.2), and found no effect on historic properties within or adjacent to the area of potential effects (DEIS at pp. 4-5 to 4-6, § 4.2.2.1).

not “facts or expert opinion,” to support his claim of adverse effects.³⁹ As the Board commented, these effects “are not obvious.”⁴⁰

In his reply brief, Mr. Sea asserts that USEC misunderstands the process for listing on the National Register of Historic Places.⁴¹ He argues that the process does not require a formal determination of eligibility by the State historic preservation officer and that USEC was wrong in disregarding sites on Mr. Sea’s list simply for lack of an historic site nomination. While it is true that no nomination or formal determination of eligibility is necessary to trigger an NHPA review,⁴² a site must be within the area of potential effects and the project must affect the site to trigger a review of that site, and Mr. Sea has presented no facts to show otherwise for these sites or for any others.⁴³

Mr. Sea also maintains that the NRC Staff, USEC, and the Board failed to consider the “interrelatedness” of the cultural/historic sites; in essence, Mr. Sea advocates enlarging the area of potential effects to include all of the historic and prehistoric sites he identifies. In his view, students and tourists would study the sites together, not separately. As a result, he argues, categorizing sites as either “within” the area of potential effects or “outside” the area of potential effects is not a tenable distinction. The flaw in Mr. Sea’s position is that he identifies no support for any impact on *any* site, however categorized. Moreover, the DEIS — which Mr. Sea has not challenged — does not find *any* of the sites Mr. Sea lists to be *within* the area of potential effects.⁴⁴ Mr. Sea’s failure to identify any impacts on historic or cultural resources also undercuts his reply brief argument that the NRC Staff delineated the area of potential effects in the DEIS too narrowly.

In a digression prompted by a statement in Mr. Sea’s Appeal, USEC argues that Mr. Sea has had ample opportunity to participate in the section 106 “consultation” process.⁴⁵ Mr. Sea pursues this thread in his reply brief, arguing at length that the NRC Staff did not grant him consulting party status until the section 106 process

³⁹ LBP-05-28, 62 NRC at 624.

⁴⁰ *Id.* In any event the NRC Staff ultimately did issue a DEIS evaluating the sites on Mr. Sea’s list adjacent to the area of potential indirect effects — even though USEC’s environmental report had not listed these sites. *See, e.g.*, DEIS at p. 4-6, § 4.2.2.1. Since the NRC Staff worked from a complete list of potential historic sites when it prepared its evaluation — a list that included all of the sites identified by interested members of the public, including Mr. Sea (DEIS at p. 1-31, § 1.5.6.2.) — USEC’s alleged “omissions” in its environmental report are moot.

⁴¹ Reply Brief at 4-5.

⁴² 16 U.S.C. § 470f.

⁴³ Moreover, the NRC Staff has found that the USEC facility will *not* affect certain sites, namely the Barnes home and the Scioto Township Works (or the Bailey Chapel). DEIS at p. 4-6, § 4.2.2.1.

⁴⁴ According to the DEIS, the Barnes home and the Scioto Township Works (and the Bailey Chapel) are *adjacent* to the area of potential effects for indirect effects, not *within* it. DEIS at p. 4-5, § 4.2.2. Other sites included on Mr. Sea’s list are even farther away, and are not discussed in the DEIS.

⁴⁵ USEC Response at 19.

was about to close and that the NRC Staff did not comply with the requirements applicable when NEPA processes are used for NHPA purposes.⁴⁶ These lengthy new arguments are not relevant to the contentions Mr. Sea raised before the Board, and are therefore not decided here. In any event, we understand that the NRC Staff has not disregarded Mr. Sea's input as a consulting party, and is in fact forwarding his concerns to the appropriate officials.⁴⁷

b. Sea Contention No. 1.2

USEC has failed to identify potential impacts of the American Centrifuge Plant on nearby historic and prehistoric sites.

To counter the Board's finding that his support for his proposed "impacts" contention was inadequate, Mr. Sea argues on appeal that he did more than simply provide a "list" of potential adverse impacts. Mr. Sea argues that factual evidence and expert testimony support his contention. The expert testimony that Mr. Sea relies on is a declaration (the "Hancock Declaration")⁴⁸ regarding the alleged prehistoric site at the water field, submitted after a tour of the water field site. In his reply brief, Mr. Sea contends that the water field is on the DOE property, based upon the lease agreement between DOE and USEC.⁴⁹ He complains that DOE and USEC were uncooperative in providing information and access to the water field to Mr. Sea's archeological experts, and that the NRC Staff reached its conclusions with respect to the water field before Mr. Sea filed the Hancock Declaration. He argues that the NRC Staff's failure to consider the declaration of his experts nullifies the conclusion that the USEC facility will not affect the water field.

⁴⁶ Reply Brief at 5-6 (referencing 36 C.F.R. § 800.8), 9-10.

⁴⁷ In a December 2005 letter, the NRC Staff informs Mr. Sea that it is "providing additional information [in an enclosure] relevant [*sic*] to the ongoing Section 106 consultation for USEC Inc.'s proposed American Centrifuge Plant. . . . [The NRC Staff is] in the process of forwarding your objections to both the OHPO [the Ohio State historic preservation officer] and the Advisory Council on Historic Preservation." Letter to G. Sea from B. Davis, "Continuation of the National Historic Preservation Act Section 106 Consulting Process for the Proposed American Centrifuge Plant, Pike County, Ohio: New Information Regarding the U.S. Department of Energy Well Field" (December 19, 2005) ("December 2005 Letter") at 1, available as ADAMS Accession No. ML053480179, at <http://www.nrc.gov/reading-rm/adams.html>.

⁴⁸ Sea Appeal at 13, referencing "Declaration by John Hancock, Frank L. Cowan, and Cathryn Long Regarding August 5, 2005 Visit to GCEP Water Field" ("Hancock Declaration"), attached to Motion for Leave To Supplement Replies to USEC and the NRC Staff by Geoffrey Sea ("Amended Contentions") (August 17, 2005) as Exhibit AA.

⁴⁹ Whether the water field is, or is not, on the leased DOE property is not relevant to our decision. Mr. Sea has presented no basis for redefining the area of potential effects, which is effectively what he seeks through this argument.

These arguments are unavailing. We find nothing in the Hancock Declaration describing *any impact* whatsoever to the water field or any prehistoric earthwork at the water field. In fact, the lengthy excerpts from the Hancock Declaration that Mr. Sea includes in his appeal⁵⁰ merely outline *future* research urged by Mr. Sea's experts — first, research into the identity and age of the structure, and second, *if* the structure has historic significance, research on the visual and physical impact of the project on the structure, including an evaluation by hydrology experts.⁵¹ Mr. Sea presents no facts identifying an impact to the water field from the project.

Mr. Sea argues that “accidental radiological releases or fear of such [releases] could make the Barnes home and the . . . earthworks inaccessible for observation, enjoyment or study by humans for the foreseeable future.”⁵² Mr. Sea does not identify facts to show the potential for accidental releases or to explain how or why these sites could become inaccessible. Mr. Sea asserts that the Barnes home is in the direction of prevailing winds and in the direction previously subject to emissions, and that he is the “maximally exposed individual.”⁵³ USEC counters that the prevailing winds flow in the opposite direction from the Barnes home,⁵⁴ and states that its environmental report defines the “maximally exposed individual” as “a calculation based upon the potential dose to a hypothetical individual at the ACP [USEC facility] fence[-]line.”⁵⁵ In reply, Mr. Sea accuses USEC of trying to confuse the Commission regarding prevailing winds and potential exposure at the Barnes home. Mr. Sea argues that the topography of the valley can cause winds to blow to the southwest. According to Mr. Sea, because no nearby homes are situated to the northeast of the USEC facility, his home, as the closest, is in the direction of maximum windborne contamination.

While Mr. Sea's proximity to the site had bearing when we considered his standing to intervene in this matter,⁵⁶ it is not relevant here. Regardless of the definition of the maximally exposed individual or the direction of the prevailing winds, Mr. Sea presents no facts to show that the USEC facility will cause significant windborne contamination in *any* direction. Additionally, according to USEC's environmental report and the DEIS, effects from plausible accidents are

⁵⁰ Sea Appeal at 13-14, Hancock Declaration ¶¶ 15-17.

⁵¹ In contrast, the DEIS addresses Mr. Sea's hydrology concerns directly: water drawn from the water field lowers the water level of the Scioto River instead of causing subsidence on the water field. DEIS at p. 4-7, § 4.2.2.2.

⁵² Sea Appeal at 5.

⁵³ *Id.*

⁵⁴ USEC Response at 4-5, citing to its Environmental Report for the American Centrifuge Plant in Piketon, Ohio (“Environmental Report”), Revision 5 (Oct. 21, 2005) at pp. 3-47 through 3-50.

⁵⁵ USEC Response at 5, citing Revision 5 of its Environmental Report at p. 4-110.

⁵⁶ CLI-05-11, 61 NRC at 310.

at acceptably low risk levels.⁵⁷ Mr. Sea provides no facts or expert testimony to controvert the environmental report or the DEIS.

Further, Mr. Sea criticizes USEC for referring to the DEIS in its brief, asserting that he has not yet had the opportunity to address the DEIS. Our regulations provide that for issues arising under NEPA, a petitioner must file contentions based on the applicant's environmental report.⁵⁸ The petitioner may amend those contentions or file new contentions if the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, differ significantly from the data or conclusions in the applicant's documents.⁵⁹ The DEIS was released in August 2005,⁶⁰ and Mr. Sea participated in a public meeting on it in September 2005.⁶¹ The Board expressly advised Mr. Sea of his right to frame new contentions based on the DEIS.⁶² He did not do so.

It is well recognized that where a contention based on an applicant's environmental report is "superseded by the subsequent issuance of licensing-related documents" — whether an environmental impact statement or an applicant's response to a request for additional information — the contention must be "disposed of or modified."⁶³ Thus, where a contention alleges the omission of particular information or an issue from an application, and the information is later supplied by the applicant or considered by the NRC Staff in an environmental impact statement, the contention "is moot."⁶⁴

In such cases in which an earlier contention based upon an applicant's environmental report is rendered moot by the NRC's environmental impact statement, resolution of the mooted contention requires no more than a finding by the presid-

⁵⁷ The NRC Staff's analysis evaluates the radiological impacts on offsite personnel as small. *See* DEIS at p. 4-60, § 4.2.12.2. Under the NRC Staff's analysis, the fence-line dose is well below regulatory standards. DEIS at p. 4-65, § 4.2.12.3. Additionally, as USEC notes, unsubstantiated fear of an effect is not a sufficient basis for an admissible contention. USEC Response at 4 n.16, citing *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 776-78 (1983).

⁵⁸ *See* 10 C.F.R. § 2.309(f)(2).

⁵⁹ *Id.*

⁶⁰ *See* ADAMS Accession No. ML052440433, dated August 31, 2005; *see also* Letter from B. Davis to Geoffrey Sea, "Transmittal of Draft Environmental Impact Statement for the Proposed American Centrifuge Plant, Pike County, Ohio and Request for Consulting Party Comments" (Sept. 6, 2005), ADAMS Accession No. ML052440425.

⁶¹ *See* E-mail from Geoffrey Sea to M. Blevins, "Re: USEC DEIS and 106 Comments" (Nov. 23, 2005), ADAMS Accession No. ML053340475; Transcript, "American Centrifuge Plant Draft EIS [Environmental Impact Statement] Public Meeting," at 80-89 (Sept. 29, 2005), ADAMS Accession No. ML053010374; *see also* USEC Response at 19 n.21.

⁶² *See* LBP-05-28, 62 NRC at 627.

⁶³ *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 383 (2002), citing *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1050 (1983).

⁶⁴ *McGuire*, CLI-02-28, 56 NRC at 383.

ing officer that the matter has become moot. While this might be accomplished through a motion for summary disposition, it also may be accomplished as part of the contention admission phase of the proceeding.⁶⁵ Mr. Sea also complains that the Board impermissibly weighed the evidence and made a judgment on the merits regarding his photograph of modifications to the Southwest Access Road.⁶⁶ The Board did comment that the photograph did not match Mr. Sea's description.⁶⁷ In our view, however, the key issue is that Mr. Sea identified no link between the USEC facility and the modifications to the road. As the Board noted, USEC has stated that modifications to the road were unrelated to the project and has explained that under its proposal the road will be closed.⁶⁸ In light of Mr. Sea's failure to provide sufficient facts and/or expert opinion linking the USEC facility and modifications to the road, and because the road will be closed, the photograph is simply not relevant and cannot serve as factual support for Mr. Sea's proposed contention.

Mr. Sea also asserts, without support, that a defoliant applied around the perimeter of the Piketon property is "in preparation" for the USEC facility.⁶⁹ As USEC suggests in its brief,⁷⁰ however, Mr. Sea's assertion that defoliant application began in 2003⁷¹ — well before USEC applied for an NRC license — undermines his argument that the defoliant application is "in preparation" for the proposed USEC facility. In any event, Mr. Sea does not identify any impact, positive or negative, of the defoliant application on the historic sites on his list.

As additional support for this proposed contention, Mr. Sea includes an extended excerpt from arguments he made before the Board.⁷² In this excerpt,

⁶⁵ In this respect, we agree with the Board that admitting such a contention likely would have led to the submittal of "a curing [license application] amendment . . . which thereupon would be appropriate for summary disposition. The net result of such a process would add no additional information, but would simply create unnecessary additional work for the parties and unnecessary delay — both of which the Commission has continuously encouraged licensing boards to avoid." LBP-05-28, 62 NRC at 625. We consider it prudent, however, for the Board to have had some documentation in hand from the applicant (in the form of a response to a request for additional information or a revision to the application) or from the NRC Staff, in the form of an environmental impact statement, prior to considering the environmental report omission to have been cured. Nevertheless, we note that the Board had other separate, acceptable bases for the rejection of Petitioner's contentions.

⁶⁶ Photograph identified as taken on August 14, 2005, showing part of the entrance to the new Southwest Access Road, with the Barnes home, as viewed from the north, Amended Contentions at 5, attached to Amended Contentions as Exhibit BB.

⁶⁷ See LBP-05-28, 62 NRC at 626.

⁶⁸ *Id.*

⁶⁹ Sea Appeal at 5.

⁷⁰ See USEC Response at 5 n.22.

⁷¹ Sea Appeal at 5.

⁷² The excerpt is taken from "Geoffrey Sea's Reply to Answer of USEC and Response of NRC Staff to Filings of August 17" (Sept. 6, 2005).

Mr. Sea asserts that the proposed USEC facility will have an impact on the historic properties at the facility's boundaries. He argues that the effects on these properties are "physical, aesthetic and economic and are precisely those sorts of impacts that the [NHPA] was enacted to prevent and modify."⁷³ But Mr. Sea nowhere describes the nature of these effects: For example, how will the USEC facility physically affect the Barnes home? How will the USEC facility affect the aesthetics of the Barnes home? What economic impact will the USEC facility have on the Barnes home? What facts support the likelihood of any effects? Mr. Sea gives no answers to these questions. As a result, we agree with the Board that the contention lacks adequate factual or expert support to meet our strict contention pleading rules.⁷⁴ Were we to proceed to hearing on this proposed contention, it is not at all clear what, beyond rhetoric, Mr. Sea would be able to present.

2. Compliance with Federal Historic Preservation Laws

a. Sea Contention No. 2.1

The USEC-DOE collaborative arrangement is out of compliance with the National Historic Preservation Act and related legislation.

Mr. Sea argues that the Board erred in finding his "USEC-DOE" contention beyond the scope of the proceeding and lacking adequate support. Mr. Sea argues that this proceeding must include a discussion of DOE's and USEC's *past* compliance with the NHPA because the proposed project is a continuation of USEC's earlier Gas Centrifuge Enrichment Project. Mr. Sea argues that the site

⁷³ Sea Appeal at 14. Mr. Sea also complains that the Board ignored two expert statements of Dr. Thomas King, which Mr. Sea asserts show the essential difference between qualitative analysis under the NHPA and quantitative analysis under NEPA of the impact of a project. Sea Appeal at 5. Mr. Sea does not identify these two statements in his appeal, but he may be referring to Exhibit Q to Petition To Intervene by Geoffrey Sea (Feb. 28, 2005) and Exhibit V to Reply by Geoffrey Sea to Answer of NRC Staff (Apr. 1, 2005). Neither of these two statements provides specific facts or details, as required under 10 C.F.R. § 2.309(f)(1)(v) for an admissible contention.

⁷⁴ We reject Mr. Sea's argument that our granting him standing last year, CLI-05-11, 61 NRC 309 (2005), requires us now to be lenient regarding the quality of the support he provides for his contentions. See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 215-16, *petition for reconsideration denied*, CLI-03-18, 58 NRC 433 (2003) ("[a] threshold finding of standing does not render contentions admissible. While a petitioner may have a sufficient 'interest' in a proceeding for standing, he or she may have no genuine material dispute to adjudicate, or no specific factual or legal support to bring an issue to hearing"); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 26 (2001) ("[Petitioner] seems to believe that simply because the Licensing Board found he had standing, he automatically should also be allowed to intervene as a party in the proceeding. . . . To gain admission as a party, however, a petitioner must proffer at least one valid contention for litigation.").

has not complied with the NHPA since the beginning of the earlier project. As support for this “no compliance” argument, Mr. Sea again turns to the Hancock Declaration, which he asserts shows the lack of an NHPA compliance program dating back to 1983. The Hancock Declaration does not support this asserted showing. To the contrary, Mr. Sea’s experts reveal their lack of knowledge about the status of NHPA compliance since 1983 by requesting access to previous reports of cultural resource investigations. Mr. Sea provides no factual or expert support for his allegation of prior project noncompliance, and, more importantly, prior projects at the Piketon site are not before us in this proceeding. This proceeding is concerned with USEC’s new proposal, not its prior Gas Centrifuge Enrichment Project. We agree with the Board that reconsideration of that project’s compliance with the NHPA is outside the scope of this proceeding.

Mr. Sea argues that USEC and DOE cannot be separated because they have merged their activities at Piketon. He further argues that, because of the merged activities, DOE’s activities are within the scope of the proceeding even though the NRC would not regulate DOE in this instance. Mr. Sea cites an audit report of the DOE Office of Inspector General⁷⁵ to support his argument that DOE and USEC have merged their activities at Piketon. But, contrary to Mr. Sea’s interpretation, the audit report did not conclude that DOE and USEC had done so. Instead, the audit report found an unclear division of costs⁷⁶ and recommended corrective action.⁷⁷

In his reply brief, Mr. Sea argues that the lease agreement between USEC and DOE is not beyond the scope of this proceeding. He maintains that the lease agreement relates to the proceeding because it provides evidence that USEC assumed responsibility for complying with NHPA requirements for the leased property, including the water field site. He argues, therefore, that consideration of the terms of the lease agreement is properly part of considering the present condition of the site. We disagree. The agency granting the license, here the NRC, has the obligation to comply with the NHPA. Any contractual provision that purports to shift NHPA compliance responsibility from DOE to USEC cannot affect the NRC’s statutory obligation to comply with the NHPA with respect to the licensing of the proposed project.

In short, we agree with the Board that Mr. Sea’s proposed “USEC-DOE” contention is inadmissible.

⁷⁵ Amended Contentions, attached to Exhibit FF as “Exhibit A” (“IG Report”) (the audit report itself is actually placed within Exhibit A after a three-page introductory Memorandum).

⁷⁶ IG Report at 3.

⁷⁷ *Id.* at 4-5.

b. Sea Contention No. 2.2

Noncompliance with federal preservation law has undermined the legitimacy and legal basis of the USEC-DOE agreement.

Mr. Sea repeats his argument that the Commission cannot review the USEC facility's compliance with the NHPA without assessing the compliance of the earlier project. As support, he refers to his arguments for admitting Contention No. 2.1. For the reasons given in the immediately preceding section of today's decision, there is no substance to Mr. Sea's argument, and we affirm the Board's rejection of this proposed contention.

3. Consideration of Action Alternatives

a. Sea Contention No. 3.1

USEC has failed to consider a broad range of alternatives to the proposed action.

On appeal, Mr. Sea argues that the Board considered only the NEPA concept of "consideration of alternatives" and failed to consider the differing NHPA concept of "consideration of alternatives." From Mr. Sea's perspective, the NHPA requires a different set of alternatives to be considered: instead of alternatives that further the goals of the proposed project, the Commission should examine alternatives that "do a better job of preserving and protecting threatened cultural resources."⁷⁸

We agree that the consideration of alternatives under the NHPA differs from NEPA requirements, but the difference is one of timing and of prerequisites. The Board's focus on limiting the identification required in the environmental report to feasible, nonspeculative alternatives, reasonably related to the goals of the proposed project, arguably misses this difference. NEPA requires the applicant and the NRC Staff to conduct a rigorous and objective evaluation of all reasonable, nonspeculative alternatives in relation to the objectives of the proposed project.⁷⁹ Thus, under NEPA, the consideration of alternatives is an integral part of the application process from the outset, with no preconditions. NHPA also requires the NRC Staff to examine alternatives. But unlike the NEPA requirement, the NHPA requirement comes into play *only if* the project will have an adverse

⁷⁸ Sea Appeal at 18.

⁷⁹ See *Concerned Citizens Coalition v. Federal Highway Administration*, 330 F. Supp. 2d 787, 796 (W.D. La. 2004). See also *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.* 435 U.S. 519, 551 (1978).

effect on historic properties, and *only after* that determination is made.⁸⁰ Mr. Sea's analysis misses this difference. In short, an adverse effect⁸¹ is a required precondition,⁸² not met here, to the consideration of alternatives under the NHPA. Here, as we have reiterated throughout today's decision, no proposed contention specifies *any* effect on the historic properties listed by Mr. Sea, much less an adverse effect.

In his reply brief, Mr. Sea repeats his argument that proper identification of the historic sites would have created an obligation to assess allegedly benign alternatives to the project, such as moving it to Paducah, Kentucky. Again, this argument misses the mark. Under the NHPA, there *must be an adverse effect* upon the historic property; absent an adverse effect, no alternatives need be considered.

In sum, the Board reached the correct result when it rejected Mr. Sea's "alternatives" contention.

b. Sea Contention No. 3.2

USEC stated action alternatives should be seriously evaluated.

Mr. Sea argues on appeal that USEC had an obligation to compare the relative cultural effects of the project on alternative sites (Piketon, Ohio, versus Paducah, Kentucky). Mr. Sea provides no legal support for his position. We discern no NHPA requirement to compare a project's cultural impact on alternatives to the proposed site. To the contrary, courts have found that the NHPA and its implementing regulations do not impose an obligation to consider alternative sites.⁸³ We agree with the Board that this proposed contention is inadmissible.

III. CONCLUSION

For the foregoing reasons and for the reasons given by the Board, we affirm the Board's rejection of Mr. Sea's contentions. We grant Mr. Sea's motion for leave to reply, but only in part, limiting our consideration of Mr. Sea's reply brief to issues that genuinely "reply" to the other participants' responses to his appeal.

⁸⁰ See *Concerned Citizens*, 330 F. Supp. 2d at 798. Also *Navajo Nation v. U.S. Forest Service*, 408 F. Supp. 2d 866, 880, 2006 WL 62565 at 11 (D. Ariz. Jan. 11, 2006).

⁸¹ See 36 C.F.R. § 800.5(a)(1).

⁸² 36 C.F.R. §§ 800.5(d)(2), 800.6.

⁸³ See *Wicker Park Historic District Preservation Fund v. Pierce*, 565 F. Supp. 1066, 1075-76 (N.D. Ill. 1982). Also *Lesser v. City of Cape May*, 110 F. Supp. 2d 303, 328 (D. N.J. 2000).

IT IS SO ORDERED.

For the Commission,

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 3d day of April 2006.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 70-7004

USEC INC.
(American Centrifuge Plant)

April 3, 2006

The Commission affirms an Atomic Safety and Licensing Board decision that rejected all of the contentions submitted by Intervenors Portsmouth/Piketon Residents for Environmental Safety and Security (PRESS).

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

Since 1989, our contention rules have insisted upon some reasonably specific factual or legal basis for a petitioner's allegations. No contention will be admitted for litigation in any NRC adjudicatory proceeding unless the contention requirements are met.

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

We expect our licensing boards to examine cited materials to verify that they do, in fact, support a contention. But it is not up to the boards to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves; boards may not simply "infer" unarticulated bases of contentions. It is a contention's proponent, not the licensing board, that is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement for a contention.

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

Absent extreme circumstances, we will not consider on appeal either new arguments or new evidence supporting a contention, which the Board never had the opportunity to consider.

NEPA: ANALYSIS OF ALTERNATIVES

When reviewing a license application filed by a private applicant, the agency may appropriately accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project and should take into account the needs and goals of the parties involved in the application.

NEPA: ANALYSIS OF ALTERNATIVES

Agencies need only consider those alternatives that can achieve the purposes of the project.

**RULES OF PRACTICE: CONTENTION ADMISSIBILITY
(EXEMPTIONS)**

The mere fact that an application requests an exemption from a particular regulatory provision does not render an application deficient. Our regulations specifically allow the NRC to grant exemptions that will not threaten the common defense and security, or endanger life or property, and that are otherwise in the public interest.

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

An expert opinion that merely states a conclusion without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion.

RULES OF PRACTICE: BRIEFS

Our page limits on briefs are intended to encourage parties to make their strongest arguments as concisely as possible. Thus, generalized claims followed by unelaborated references to oral arguments and multiple pages run afoul of our page limitation rules.

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

Contentions must be based on a genuine material dispute, not the possibility that petitioners, if they perform their own additional analyses may ultimately disagree with the application.

MEMORANDUM AND ORDER

I. INTRODUCTION

This proceeding stems from an application by USEC, Inc. (“USEC”), for a license to construct and operate a uranium enrichment facility in Piketon, Ohio. In this decision, we consider an appeal by Portsmouth/Piketon Residents for Environmental Safety and Security (PRESS) of LBP-05-28, an Atomic Safety and Licensing Board (“Board”) decision that rejected all of PRESS’s contentions, and accordingly denied PRESS’s petition to intervene in this proceeding.¹ Both USEC and the NRC Staff support the Board’s decision. For the reasons the Board outlined in LBP-05-28 and those we give below, we find none of PRESS’s contentions admissible. We affirm LBP-05-28.

II. BACKGROUND

On October 18, 2004, the NRC issued a public notice announcing the receipt and availability of the USEC license application, and the opportunity to intervene in the hearing on USEC’s application.² The notice set forth December 17, 2004, as the deadline for submitting petitions for intervention. Out of concern, however, that all parts of the USEC application had not been adequately screened for information that could be used by a potential adversary, the NRC suspended public access to the USEC application on October 25, 2004. On December 17, 2004, the original deadline for intervention petitions, PRESS filed a request for an extension of time in which to file its petition. Given that public access to the USEC application had been interrupted, the NRC extended the petition filing deadline by 60 days from the date the application was again made publicly

¹ LBP-05-28, 62 NRC 585 (2005). Another portion of the Board decision rejected Mr. Geoffrey Sea’s petition to intervene. Like PRESS, Mr. Sea appeals to the Commission. We address Mr. Sea’s appeal in a separate decision (CLI-06-9, 63 NRC 433 (2006)) we issue today.

² 69 Fed. Reg. 61,411 (Oct. 18, 2004) (Hearing Notice).

available, thus giving PRESS (and other petitioners who requested an extension) until February 28, 2005, to file their intervention petitions.³

PRESS timely filed an intervention petition containing twenty-two proposed contentions. The Board held a telephone prehearing conference, giving PRESS an opportunity to clarify its arguments on four of its submitted contentions.⁴ In LBP-05-28, the Board issued its decision finding all of PRESS's proposed contentions inadmissible. The decision noted that "PRESS's contentions were presented in a vague, disorganized, and repetitive fashion," which made it difficult for USEC and the NRC Staff to understand and respond to the contentions.⁵ Nonetheless, the Board noted that because "PRESS is proceeding *pro se* and has attempted to present its numerous concerns regarding the proposed ACP [American Centrifuge Plant]," the Board would "address each contention in depth to ensure that [it did] not overlook any legitimate issue simply because of the way it is articulated."⁶

PRESS appealed the Board's decision. Together with its appeal filing, however, PRESS filed a motion requesting that the Commission allow it to supplement its appeal with additional pages. PRESS explained that its "treatment" of the appeal was "incomplete in 30 pages" (the applicable page limit on appeal brief length), and requested that the Commission allow it the opportunity to "augment [its] appeal to finish the treatment."⁷ Even though PRESS waited until the day the appeal was due to make this request for additional time and pages, and did not comply with our procedural requirements for motions,⁸ the Commission granted PRESS the opportunity to submit an additional 20 appeal brief pages.⁹ PRESS then supplemented its appeal with an additional brief.¹⁰

³ Order (Dec. 29, 2004) (unpublished).

⁴ See Memorandum and Order (Order Scheduling Oral Argument on the Admissibility of Contentions) (July 12, 2005) (unpublished).

⁵ LBP-05-28, 62 NRC at 599.

⁶ *Id.*

⁷ Notice of Appeal and Brief and Motion for Leave To Augment Appeal by PRESS (Oct. 18, 2005) (Initial Brief) at 1, 29.

⁸ In general, motions "must . . . state with particularity the grounds and the relief sought, be accompanied by any affidavits or other evidence relied on, and, as appropriate, a proposed form of order." They also must "include a certification by the attorney or representative of the moving party that the movant has made a sincere effort to contact the other parties in the proceeding and resolve the issue(s) raised in the motion . . ." See 10 C.F.R. § 2.323(b).

⁹ Order (Nov. 18, 2005) (unpublished).

¹⁰ We note, parenthetically, that PRESS was late in filing these supplemental pages, which were due on November 28, 2005, but not submitted until after 1:30 p.m. the next day. A cover note submitted with the electronic submission explained that PRESS "believe[d]" it "would have made the submission by deadline at midnight [on November 28, 2005]," but that there had been a neighborhood power failure from 9 p.m. until "some hours after midnight." PRESS should have, nonetheless, alerted the NRC and other litigants as soon as possible. Because we find none of PRESS's contentions admissible, we will not inquire further into this delay.

In its appeal, PRESS claims that the Licensing Board “‘applied too strict a [contention] standard to the admission of our contentions.’”¹¹ PRESS argues that it “‘by and large . . . provide[d] *enough* support to pass the standard of admissibility.’”¹² Because our decision today turns on the adequacy of PRESS’s contentions, we begin our look at PRESS’s appeal by once again describing the NRC’s strict contention admissibility standards.¹³

III. REQUIREMENTS FOR CONTENTIONS

To gain admission as a party, a petitioner for intervention must submit at least one admissible contention.¹⁴ In 1989, we raised the admission standards for contentions in an effort to “‘obviate serious hearing delays caused in the past by poorly defined or supported contentions.’”¹⁵ Prior to this rule revision, “‘licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation.’”¹⁶ Consequently, “‘[a]dmitted intervenors often had negligible knowledge of nuclear power issues and, in fact, no direct case to present, but instead attempted to unearth a case through cross-examination.’”¹⁷ “‘Serious hearing delays — of months or years — occurred, as licensing boards admitted and then sifted through poorly defined or supported contentions.’”¹⁸ We therefore amended our contention rules, responding to Congress’s call that our adjudicatory hearings “‘serve the purpose for which they are intended: to adjudicate genuine, substantive safety and environmental issues placed in contention by qualified intervenors.’”¹⁹

Since 1989, our contention rule has “‘insist[ed] upon some reasonably specific factual or legal basis for a petitioner’s allegations.’”²⁰ To be admissible, a contention must provide a specific statement of the issue of law or fact to be raised

¹¹ Reply to USEC and NRC Staff Regarding PRESS Appeal (Nov. 1, 2005) (First Reply) at 4.

¹² *Id.* at 3 n.1 (emphasis in original).

¹³ *See, e.g., Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 808 (2005); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 129 (2004).

¹⁴ *See* 10 C.F.R. § 2.309(a), (f).

¹⁵ *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999).

¹⁶ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001) (quoting *Oconee*, CLI-99-11, 49 NRC at 334).

¹⁷ *Id.* at 358 (quoting *Oconee*, CLI-99-11, 49 NRC at 334).

¹⁸ *Id.*

¹⁹ *Oconee*, CLI-99-11, 49 NRC at 334 (citation omitted); *accord Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 213 (2003).

²⁰ *Millstone*, CLI-03-14, 58 NRC at 213 (internal quotations omitted).

or controverted; a brief explanation of the basis for the contention; and a concise statement of the alleged facts or expert opinions which support the contention, and upon which the petitioner will rely at the hearing, together with references to those documents or other sources of which the petitioner is aware and upon which he intends to rely.²¹

A contention must also identify the disputed portion of the application, and provide “supporting reasons” for the challenge to the application.²² Similarly, if a petitioner believes that an application fails to contain information on a “relevant matter as required by law,” the contention must identify each failure and the supporting reasons for the petitioner’s belief.²³ The issue raised in a contention must fall within the scope of the proceeding, and reflect a genuine dispute with the applicant or licensee on a material issue of law or fact.²⁴

The Commission recently reemphasized that “no contention will be admitted for litigation in any NRC adjudicatory proceeding unless these [contention] requirements are met.”²⁵ The contention standards now have been in effect for over 15 years and have proved “effective in focusing litigation” on genuine safety and environmental issues that are relevant to the licensing action.²⁶ At the same time, these threshold standards have not unduly restricted public participation in our proceedings. Licensing boards continue to grant hearing requests and admit for litigation numerous contentions in a variety of adjudicatory proceedings. Indeed, in another ongoing proceeding similarly involving an application for a uranium enrichment facility, the licensing board admitted several safety and environmental contentions for hearing.²⁷

We recognize, nonetheless, that our contention rules require petitioners “to work within a limited time frame to review the license application and any available related licensing documents,” and that this “can pose a significant burden, especially for *pro se* petitioners who are likely to have less available time and resources.”²⁸ But those participating in our proceeding must be prepared to expend the necessary effort. We are unwilling to convene costly and time-consuming

²¹ 10 C.F.R. § 2.309(f). In 2004, we again revised our adjudicatory procedural rules. The general threshold contention admission standards remained substantively the same, but were renumbered as part of the overall reorganization of Part 2. Prior to this 2004 revision, the contention admissibility standards were found in 10 C.F.R. § 2.714(b)(2).

²² 10 C.F.R. § 2.309(f)(1)(vi).

²³ *Id.*

²⁴ See 10 C.F.R. § 2.309(f)(1)(iii) and (vi).

²⁵ Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004).

²⁶ See *id.* at 2190.

²⁷ See *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-04-14, 60 NRC 40 (2004).

²⁸ *Oconee*, CLI-99-11, 49 NRC at 338.

hearings “unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing.”²⁹ Of course, whether or not particular contentions are admitted for hearing, the NRC Staff conducts a full safety and environmental review of every proposed licensing action, and may not issue a license until all necessary findings have been made.

IV. PRESS’S CONTENTIONS

Like the Board, we have examined PRESS’s contentions, and we agree with the Board that they do not satisfy the threshold standards for admission. PRESS’s contentions overwhelmingly lack the necessary minimal factual or legal support. It is simply insufficient, for example, for a petitioner to point to an Internet Web site or article and expect the Board on its own to discern what particular issue a petitioner is raising, including what section of the application, if any, is being challenged as deficient and why. A contention must make clear why cited references provide a basis for a contention.³⁰ On appeal, PRESS repeatedly suggests that the Board had an “obligation” to examine referenced articles to find support for contentions. We expect our licensing boards to examine cited materials to verify that they do, in fact, support a contention.³¹ But it is not up to the boards to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves; boards may not simply “infer” unarticulated bases of contentions.³² It is a “contention’s proponent, not the licensing board,” that “is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement for the admission of contentions.”³³

On appeal, PRESS suggests that the Board rejected contentions because PRESS had not attached copies of referenced documents. While the Board frequently noted that PRESS had failed to provide a particular cited document, the Board did not reject any contention solely on the ground that a document was not provided with the petition. Ultimately, it rejected contentions that did not make clear how

²⁹ 69 Fed. Reg. at 2202.

³⁰ See, e.g., *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 204 (2003).

³¹ See *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 49 (1989), *vacated in part on other grounds*, CLI-90-4, 31 NRC 333 (1990).

³² See *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991); see also *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 194 (1999), *petition for review denied*, *Dienethal v. NRC*, 203 F.3d 52 (D.C. Cir. 2000).

³³ *Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 22 (1998).

referenced items supported the contention.³⁴ On appeal, out of an abundance of caution, we examined all cited references that are readily accessible electronically on the Internet.

An additional general issue that bears mention is that PRESS's appeal briefs repeatedly raise new arguments to support its contentions. Indeed, several of these new claims effectively amount to distinct new contentions, never presented to the Board. Allowing petitioners to file vague, unsupported contentions, and later on appeal change or add contentions at will would defeat the purpose of our contention-pleading rules.³⁵ Therefore, absent extreme circumstances, we will not consider on appeal "either new arguments or new evidence supporting the contention[s], which the Board never had the opportunity to consider."³⁶ This includes PRESS's effort on appeal to revive particular contentions by directing the Commission to consider the bases that were proffered in support of *other* contentions.³⁷

We believe that the 60-day period provided under 10 C.F.R. § 2.309(b)(3) is ample time for potential intervenors to review an application and develop contentions.³⁸ In the event of exigent circumstances or other compelling reasons, our rules allow a late-filed petition and contentions.³⁹ Here, PRESS claims that it was "several drafts away from a properly composed product" when it submitted its contentions.⁴⁰ But PRESS neither sought additional time for filing its petition (beyond the 60-day extension it already had received), nor sought later to amend any of its contentions. The purpose of an appeal to the Commission is to point out errors made in the Board's decision, not to attempt to cure deficient contentions by presenting arguments and evidence never provided to the Board.⁴¹

³⁴ Similarly, the Board noted that PRESS's contentions repeatedly make a "bare reference" to an NRC regulation, "without explaining its significance or establishing any connection to the proffered contention." See 62 NRC at 599 n.39. The Board did not individually address these unexplained citations to regulations, and we likewise do not do so here.

³⁵ *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 622-23 (2004).

³⁶ *Private Fuel Storage*, CLI-04-22, 60 NRC at 140; see also, e.g., *Sequoyah Fuels Corp.* (Gore Oklahoma Site), CLI-04-2, 59 NRC 5, 8 n.18 (2004); *Zion*, CLI-99-4, 49 NRC at 194.

³⁷ See, e.g., Notice of Appeal and Brief, Continued by PRESS (Nov. 29, 2005) (Augmented Brief) at 46; Initial Brief at 19-20.

³⁸ See 69 Fed. Reg. at 2199-2200.

³⁹ *National Enrichment Facility*, CLI-04-35, 60 NRC at 623; see also 10 C.F.R. § 2.309(c); Final Rule, 69 Fed. Reg. at 2200.

⁴⁰ Initial Brief at 2.

⁴¹ Additionally, we note that our regulations do not provide for reply briefs on appeals of Board decisions denying intervention. See 10 C.F.R. § 2.311. PRESS filed two reply briefs, one following the responses to its initial appeal brief, and another following responses to its supplemental appeal

(Continued)

With these points in mind, we turn now to PRESS's particular arguments on appeal. PRESS's appeal reversed the numerical order in which its contentions had been presented in the PRESS petition. In other words, on appeal PRESS begins with its arguments on Contention 21 and ends with Contention 2. PRESS apparently reversed the order of the presentation because it considers "the most important, and most consequential" issues to be those that were raised in the contentions found "towards the end" of its petition.⁴² USEC followed this same backwards progression in its answering brief. For clarity's sake, we do the same.

A. Contention 21: Unnecessary Censorship

Contention 21 complains that "some of the public censorship of the USEC documents was unnecessary." As bases, the contention identifies several items that were redacted from the original publicly available version of the application. For one of the identified redactions, PRESS states that it was "clearly not necessary" to redact a figure because it can be found in a separate — and publicly available — document.⁴³

PRESS's contention does nothing more than identify particular redactions. One of the redacted items is a consultation letter on USEC's environmental review. Before the Board, USEC explained that the NRC Staff inadvertently had failed to enter consultation letters into the NRC electronic docket file, but that the letters had since been entered in the file. The other redacted items were clearly identified in the application as having been withheld pursuant to 10 C.F.R. § 2.390. That regulation allows certain information to be withheld from public disclosure, including, for example, trade secrets and other confidential financial information, or information that concerns an applicant's physical protection, classified matter protection, or material control and accounting program that is otherwise not designated as Safeguards Information or classified as National Security Information or Restricted Data.⁴⁴

PRESS's petition did not suggest that it needed any of the listed items to develop one or more proposed contentions. Indeed, PRESS itself makes the point that some redacted information can be found "in any number of publicly available documents."⁴⁵ Regardless of whether USEC's redactions were appropriate under

brief. The replies inappropriately refer to our regulation governing appeals of decisions on the merits. We have considered the replies, but not to the extent that they raise any new arguments not presented to the Board.

⁴² Initial Brief at 15.

⁴³ See Petition To Intervene by PRESS (Feb. 28, 2005) ("Petition") at 52.

⁴⁴ 10 C.F.R. § 2.390(d)(1).

⁴⁵ Initial Appeal at 15.

10 C.F.R. § 2.390, PRESS simply did not link any of them to a specific safety or environmental question within the scope of this licensing proceeding.

On appeal, PRESS argues that USEC's application included redactions that "significantly impeded [PRESS's] understanding of the LA [license application] documents," and indeed that it was "frustrated at every turn, in attempting to analyze the LA documents, by missing information that had been 'withheld pursuant to 10 C.F.R. 2.390.'"⁴⁶ But as originally presented to the Board and participants, PRESS's "unnecessary censorship" contention suggested nothing more than that some specific redactions may have been unnecessary. Before the Board, PRESS nowhere complained that the redactions had inhibited framing contentions.

Petitioners cannot revive their case on appeal on the basis of new arguments that the Board never had the opportunity to consider. PRESS, in any event, never requested any of the redacted items identified in its "unnecessary censorship" contention, or requested other redacted items in the application at large.⁴⁷ Under longstanding agency precedent, petitioners or intervenors may request and, where appropriate, obtain — under protective order or other measures — information withheld from the general public for proprietary or security reasons.⁴⁸

On appeal, PRESS states that it was not "confident" that it was allowed to request the withheld information.⁴⁹ But it is not apparent that PRESS even attempted to do so, by making relevant inquiries or otherwise. Notably, under 10 C.F.R. § 2.390, documents withheld from general public inspection may still be made available under protective order, as appropriate, to "persons . . . directly

⁴⁶ *Id.* at 16-17.

⁴⁷ At most, PRESS complained during a telephonic prehearing conference before the Board that it had had trouble understanding an issue related to Contention 11 because particular figures had been redacted, although it still had obtained a "good idea" of the issue of concern. *See* Transcript (Telephone Conference) (July 19, 2005) at 31-37.

⁴⁸ *See, e.g., Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-19, 60 NRC 5 (2004) (safeguards information); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-80-24, 11 NRC 775 (1980) (security plan); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 160, *aff'd*, CLI-98-13, 48 NRC 26 (1998) (security plan); *Maine Yankee Atomic Power Co.* (Maine Yankee Atomic Power Station) (Order Approving Joint Proposed Memorandum and Order — Protective Order and Procedures for Handling Safeguards Information and Proposed Affidavit) (Mar. 24, 2003) (unpublished); *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation) (Memorandum and Order — Protective Order Governing Disclosure of Proprietary Information) (June 19, 2002) (unpublished); *Nuclear Fuel Services, Inc.* (Erwin, TN) (Order — Protective Order for Use in NFS Project Proceeding) (May 18, 2004) (unpublished) (proprietary information); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility) (Protective Order) (June 29, 2001) (unpublished) (proprietary information); *see also* Hearing Notice, 69 Fed. Reg. at 61,415 (re: access to classified information).

⁴⁹ First Reply at 4.

concerned to inspect the document.’’⁵⁰ In addition, in a pleading filed months before the Board’s decision, USEC expressly noted that “procedures have existed for Petitioners to have sought access” to redacted information.⁵¹ PRESS did not request redacted documents.

At bottom, the issue raised in PRESS’s “unnecessary censorship” contention is that “there exists at least one unnecessary redaction” in USEC’s application.⁵² Even if true, this by itself does not amount to a material issue for litigation in this proceeding.⁵³

B. Contention 20: Need for Proposed Action

Contention 20 claims that there is no need for the proposed action because the “future of power generated by enriched uranium is very uncertain,” and there is a “growing understanding among decision makers that nuclear power is not only unsafe and generating huge amounts of dangerous wastes but is also expensive and unnecessary [*sic*].”⁵⁴

As bases for the proposed contention, PRESS argued that: (1) nuclear power is expensive; (2) states and businesses (and the Sierra Club) are promoting or pursuing renewable energy sources; (3) leading authorities on nuclear proliferation are calling for a “production pause” in nuclear enrichment facilities and therefore USEC’s Environmental Report should have addressed “this contingency”; and (4) that if the “Megatons to [M]egawatts program⁵⁵ were accelerated and expanded to accommodate the megatons, perhaps that would obviate the necessity for a centrifuge plant,” and therefore the “Megatons to Megawatts” program “should be considered an alternative to licensing the ACP [American Centrifuge Plant].”⁵⁶

As the Board found, while the contention purports to challenge the Environmental Report’s analysis of the purposes of and need for the facility, it nowhere specifically addresses or calls into question that analysis.⁵⁷ Specifically, the En-

⁵⁰ See 10 C.F.R. § 2.390(b)(6).

⁵¹ See Response of USEC, Inc. to Board Inquiries Regarding PRESS Access to Withheld Figures (July 27, 2005) at 2.

⁵² First Reply at 4.

⁵³ Eventually, much of the redacted information was made public. See Environmental Report (Rev. 4) (Aug. 2005), enclosed with letter from Steven Toelle, USEC, to Jack Strosnider, NRC (Aug. 16, 2005) (ADAMS Accession No. ML052420300). None of the participants’ briefs mentions this.

⁵⁴ Petition at 48.

⁵⁵ “Megatons to Megawatts” is the commonly used expression for a United States–Russia purchase agreement, in which the U.S. agreed to purchase from Russia highly enriched uranium extracted from dismantled nuclear weapons.

⁵⁶ Petition at 48–51.

⁵⁷ See LBP-05-28, 62 NRC at 620-21.

vironmental Report outlines: (1) long-term demand for enriched uranium from more than twenty-four reactors in other countries that are under construction, as well as from eighteen pending and twenty-six already granted domestic reactor license renewal applications (with most U.S. reactors expected to apply for license renewal); (2) the national energy security goal of a reliable and competitive domestic source of enriched uranium; (3) the national government's interest in developing advanced technologies for uranium enrichment; and (4) USEC's own commercial need to replace higher cost and aging production with new lower cost production.⁵⁸

Contention 20's references to news or other articles on renewable energy sources, energy costs and trends, and speculation about potential global nonproliferation ideas or efforts simply do not challenge any of the factors outlined in the Environmental Report's discussion of the need for the facility. The cited articles on renewable energy sources, for example, merely describe a potential for growth in renewable energy sources, given growing oil and natural gas prices, concerns about carbon dioxide emissions, and a national interest in decreasing dependence on foreign energy sources. They do not raise a genuine dispute with the applicant on a material issue relating to this application for a uranium enrichment facility.⁵⁹

In addition, PRESS apparently failed to note that the Environmental Report does in fact discuss the alternative of relying upon down-blended highly enriched uranium from nuclear warheads, such as that obtained through the Megatons to Megawatts program. The Environmental Report rejects this alternative for several reasons. The Report points out, for instance, that the Megatons to Megawatts program currently is scheduled to expire in 2013 and it is uncertain whether the program would be extended. It is "doubtful," the Environmental Report says, "that the U.S. Government would extend this agreement to replace rather than complement domestic SWU [separative work unit] production."⁶⁰ PRESS did not even mention the Environmental Report's analysis of this alternative. We therefore agree with the Board's conclusion that this contention lacks adequate

⁵⁸ Environmental Report for the American Centrifuge Plant (Aug. 2004) (Environmental Report) at 1-10 to 1-12.

⁵⁹ On appeal, PRESS presents the new argument that USEC's Environmental Report is deficient because it "fails to discuss the ameliorating effect of conservation measures on demand in its discussion of need [for the facility]." *See* Initial Appeal at 21. PRESS suggests that its contention in several places "specifically focused on conservation issues." *See id.* But PRESS's original contention itself nowhere even mentions conservation, much less "focuses" upon it. In any event, PRESS provides mere speculation that conservation measures will bring about "reduced demand for nuclear energy" and "hence reduced demand for enrichment services." *Id.* at 20. PRESS points to no requirement that an applicant for a uranium enrichment facility must also specifically consider potential electricity conservation measures. *Cf. Clinton*, CLI-05-29, 62 NRC at 805-08.

⁶⁰ Environmental Report at 2-19.

factual or expert support, fails to raise a genuine material dispute with the Applicant, and raises policy questions outside the scope of this proceeding.

C. Contention 19: Enrichment Freeze

Contention 19 asserts that “there may be an international freeze on uranium enrichment,” in which case “USEC would not be able to survive.”⁶¹ The contention cites a draft report by the Carnegie Endowment for International Peace, which proposed a temporary moratorium, or “pause,” on activities that produce highly enriched uranium [HEU] or weapons-usable plutonium, including all uranium enrichment and reprocessing activities.⁶²

On appeal, PRESS claims that it is simply asking the NRC to “consider what impact a five year moratorium on uranium enrichment would have on USEC’s financial condition.”⁶³ PRESS “believe[s] that a five year moratorium on uranium enrichment would be so devastating to USEC that it bears serious consideration whatever the [license application] says about USEC’s financial position.”⁶⁴ PRESS concedes that its proposed contention failed to meet our contention requirement to identify the disputed portion of the application. PRESS now depicts this contention as focusing on USEC’s need to “consider[] the rather significant all-around impacts that a five-year moratorium on uranium enrichment would cause,” and calls this a contention “of omission.”⁶⁵

As the Board found,⁶⁶ this contention provides only speculation about USEC’s financial capabilities, and raises issues of international policy unrelated to the NRC’s licensing criteria and therefore beyond the scope of this proceeding. Potential nuclear nonproliferation initiatives depend upon the actions and decisions of the President, Congress, international organizations, and officials of other nations. As such, nonproliferation goals and concerns “span a host of factors far removed from the licensing action at issue.”⁶⁷ Moreover, as USEC shows, “[c]urrent U.S. law not only permits, but encourages the development of U.S. advanced uranium enrichment production,” and therefore an enrichment freeze “would require a complete reversal of the U.S. energy policy.”⁶⁸ PRESS’s speculative assertions of

⁶¹ Petition at 47.

⁶² *Id.*

⁶³ Initial Appeal at 22.

⁶⁴ *Id.* at 24.

⁶⁵ *Id.* at 25.

⁶⁶ LBP-05-28, 62 NRC at 619.

⁶⁷ See *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 724 (2005).

⁶⁸ USEC Inc. Brief in Response to PRESS Notice of Appeal and Brief (Oct. 27, 2005) (USEC Response to Initial Appeal) at 15-16.

a potential 5-year freeze on the ACP's operation and of such a freeze's impact on USEC's financial qualifications are not nearly sufficient to satisfy our contention admissibility standards.

D. Contention 18: USEC Incompetence

Contention 18 argues that “as the leading violator of the NRC materials licensees, USEC is incompetent to hold a license to operate a centrifuge plant.”⁶⁹ It references various NRC enforcement actions taken against the United States Enrichment Corporation⁷⁰ for violations at the Portsmouth, Ohio or Paducah, Kentucky gaseous diffusion plants, mostly in the years 1998 and 1999. The Board correctly rejected the proposed contention, noting that “[a]llegations of management improprieties must be of more than historical interest,”⁷¹ and that PRESS had not presented any information calling into question USEC's current willingness and ability to follow NRC regulations.

On appeal, PRESS quotes from a portion of its oral argument before the Board, in which it catalogued by year various NRC enforcement actions against the United States Enrichment Corporation: two in 1997, five in 1998, four in 1999, two in 2000, one in 2001, one in 2002, zero in 2003, one in 2004. PRESS thus concludes that “if USEC has 15 enforcement actions in seven years, then . . . over the course of 30 years, we can expect that they shall receive 60, including four level 2 assessments.”⁷² PRESS also states that at oral argument before the Board it “presented information indicating that procedures associated with past violations would be employed at, or involved with, the ACP.”⁷³ And PRESS argues that because the United States Enrichment Corporation is a wholly owned subsidiary of USEC, “there isn't much difference between the GDP [gaseous diffusion plant] operators and the ACP operators.”⁷⁴

We have reviewed PRESS's oral argument before the Board, but find that PRESS presents no basis for its assertion that USEC is unqualified or “incompetent” to operate a centrifuge facility. Not only did the bulk of the cited violations occur 5 to 8 years ago, but they spanned two different facilities — the Portsmouth and Paducah gaseous diffusion plants. We see no explanation at oral argument or in PRESS's contention that would tie specific procedures or wrongdoing associated with the cited violations to any particular procedures at USEC's proposed

⁶⁹ Petition at 42.

⁷⁰ The United States Enrichment Corporation is a wholly owned subsidiary of USEC.

⁷¹ LBP-05-28, 62 NRC at 618 (citing *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 120 (1995)).

⁷² Initial Appeal at 28.

⁷³ *Id.*

⁷⁴ *Id.*

new facility, the ACP. PRESS merely identified the nature of the enforcement actions, not actual “procedures” used. This proposed contention presents mere assertions and speculation that USEC officials or personnel would encourage or condone violations of NRC regulations. It does not present any *ongoing* pattern of violations or disregard for regulations that might be expected to occur in the future.⁷⁵

E. Contention 17: American Centrifuge Plant Project Failure

Contention 17 complains that “USEC’s request for incremental payment is a symptom of its weak financial position.”⁷⁶ The proposed contention does not explain what is meant by “incremental payment,” but presumably it is a reference to USEC’s intention to obtain funding for the ACP in incremental stages, to accompany the planned incremental construction and installation of the facility.⁷⁷ In one of the submitted bases, the contention argues that USEC provided no “assurance that its centrifuge plans won’t go the way of its AVLIS plans,” a reference to USEC having abandoned earlier efforts to develop an alternate technology for enriching uranium with lasers, called Atomic Vapor Laser Isotopic Separation (AVLIS).⁷⁸

The Board ruled that PRESS had not presented sufficient facts or expert opinion to challenge USEC’s financial qualifications to build, own, and operate the ACP facility, and thus did not raise a genuine material issue for litigation.⁷⁹ We agree.

On appeal, PRESS argues that USEC abandoned the AVLIS project, a project that was estimated to cost \$2.5 billion, after “USEC raised only \$1.5 billion dollars for AVLIS in its IPO [Initial Public Offering].”⁸⁰ PRESS then goes on to make the new claim that “USEC must guarantee \$6.065 billion” to demonstrate sufficient financial qualifications, and that there is “serious doubt” that it would be able to fund a \$6 billion project, since it was unable to raise 2.5 billion dollars for the AVLIS project.⁸¹ As PRESS’s argument goes, if AVLIS was not an economically viable technology, then the ACP facility, “with higher costs than AVLIS . . . must therefore be a less viable technology, economically, than AVLIS.”⁸²

⁷⁵ See *Millstone*, CLI-01-24, 54 NRC at 365-66; *Zion*, CLI-99-4, 49 NRC at 189.

⁷⁶ Petition at 41-42.

⁷⁷ See, e.g., USEC License Application (Aug. 2004) at 1-49 to 1-50 (“License Application”).

⁷⁸ Petition at 42.

⁷⁹ See LBP-05-28, 62 NRC at 617.

⁸⁰ Augmented Brief at 29.

⁸¹ *Id.* at 29-30.

⁸² *Id.* at 30.

But PRESS provides no support for its claim that USEC's decision to abandon AVLIS calls into question USEC's current financial qualifications to construct and operate the ACP. As USEC argues, "[t]he economic viability of the AVLIS using *laser enrichment technology* has nothing to do with the economic viability of the ACP using *centrifuge enrichment technology*."⁸³ Moreover, as USEC further stresses, PRESS incorrectly "appears to assume that USEC must have all funds available at the beginning of the project, despite the fact USEC is planning to incrementally fund ACP construction."⁸⁴

USEC's application specifies that "[c]onstruction of each incremental phase of the facility shall not commence before funding for that increment is available or committed."⁸⁵ It further specifies that operation of the facility will not commence until USEC has achieved particular financial milestones. PRESS nowhere indicates why this incremental funding plan is not viable. PRESS provides no fact-based or expert support for its claim that "USEC doesn't have a hope of funding the ACP."⁸⁶ For these reasons, we agree with the Board that this proposed contention is inadmissible.

F. Contention 16: Alternative Site Use

Contention 16 argues that the no-action alternative would be "more beneficial to the site than the proposed action" because "Piketon could be an industrial heaven employing many thousands if it were cleaned up," and that "USEC will block alternative uses because of the security arrangements that would have to be made."⁸⁷ PRESS's first proffered basis notes that USEC has an agreement with the Department of Energy (DOE), which requires USEC to locate the ACP at either the DOE reservation located in Piketon, Ohio, or at the site of the Paducah, Kentucky gaseous diffusion plant location, but claims that USEC's commitments are irrelevant to whether "the ACP is more beneficial to the site than no ACP."⁸⁸ A second basis claims that "AVLIS, while beyond USEC's

⁸³ USEC Inc. Brief in Response to PRESS Augmented Appeal Brief (Dec. 8, 2005) (USEC Response to Augmented Brief) at 5 (emphasis in original). In addition, USEC provides un rebutted arguments challenging what it calls PRESS's "erroneously inflate[d]" estimate of funding the ACP, and its "unfounded assumption" that the AVLIS IPO proceeds were intended to be used to fund AVLIS, both of which were, in any case, new arguments on appeal. *See id.* at 4-5.

⁸⁴ *Id.* at 5.

⁸⁵ License Application at 1-50.

⁸⁶ PRESS Reply to USEC and NRC Staff Regarding PRESS Appeal (Continued) (Dec. 16, 2005) (Second Reply) at 5.

⁸⁷ Petition at 40-41.

⁸⁸ *Id.* at 41.

pocket, would be a reasonable alternative to consider.’’⁸⁹ The Board found this proposed contention inadmissible for several reasons, including that PRESS did not identify, with factual basis, any material error in USEC’s analyses of the impacts of the no-action alternative, and that ‘‘USEC was only required to discuss alternatives that produce enriched uranium.’’⁹⁰ Again, we agree with the Board.

On appeal, PRESS argues that the NRC should prefer the no-action alternative — because of its (allegedly) superior jobs-creation potential — and therefore ‘‘reject’’ the ACP license application.⁹¹ NEPA, however, is a procedural statute that ‘‘does not require [an] agency [to] select any particular options.’’⁹² Indeed, the NRC arguably need not consider the jobs issue at all, as nothing in the Atomic Energy Act gives the agency authority to base licensing decisions on a project’s potential to create or eliminate jobs.⁹³

Further, PRESS erroneously appears to assume that the NEPA analysis of ‘‘alternatives’’ should ignore the stated purposes of the project and the Applicant’s needs. Here, the specific purposes of the proposed ACP facility include the national energy security goal of maintaining a reliable, economical, secure, and domestic source of enriched uranium; developing advanced technologies for uranium enrichment; and USEC’s need to replace aging production facilities with more efficient and lower cost technology.⁹⁴ The Environmental Report concluded that the ‘‘no-action’’ alternative would not meet the stated ‘‘need’’ or purposes of the proposed licensing action.⁹⁵

On appeal, PRESS dismisses as ‘‘irrelevant’’ both USEC’s commercial needs and the project’s national energy security goal.⁹⁶ But when a federal agency ‘‘acts, not as a proprietor, but to approve . . . a project being sponsored by a local government or private applicant, the Federal agency is necessarily more

⁸⁹ *Id.*

⁹⁰ See LBP-05-28, 62 NRC at 616-17.

⁹¹ Augmented Brief at 30.

⁹² *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 44 (2001); see also *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989). In addition, an agency’s primary duty under NEPA is to look at environmental impacts. ‘‘Determination of economic benefits and costs that are tangential to environmental consequences are within a wide area of agency discretion.’’ *Private Fuel Storage*, CLI-04-22, 60 NRC at 145 (quotation and citation omitted).

⁹³ See generally *Department of Transportation v. Public Citizen*, 541 U.S. 752 (2004).

⁹⁴ See Environmental Report at 3, 1-10 to 1-12.

⁹⁵ See, e.g., *id.* at 5, 2-1 to 2-2. The DEIS similarly concludes that ‘‘[t]he proposed action better satisfies DOE’s policy and technical objectives for meeting future demand for enriched uranium, improved national energy security, and desired technological upgrades, relative to the no-action alternative.’’ See Environmental Impact Statement for the Proposed Centrifuge Plant, Draft Report (Aug. 2005) (‘‘DEIS’’), at 7-10.

⁹⁶ Augmented Brief at 31.

limited.”⁹⁷ Thus, when reviewing a license application filed by a private applicant, the agency “may appropriately ‘accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project,’ ”⁹⁸ and “should take into account the needs and goals of the parties involved in the application.”⁹⁹ In selecting the preferred alternative, it is appropriate for an agency to consider the stated purposes of a project.¹⁰⁰

PRESS’s contention puts forth the idea of an “industrial heaven” employing thousands at the Piketon site if the ACP license is denied and if the site “were cleaned up.”¹⁰¹ Yet not only did the contention lack support for this claim, as the Board found,¹⁰² but the “no-action” alternative “is most simply viewed as maintaining the status quo.”¹⁰³ For the “industrial heaven” idea to become reality would involve numerous future, yet-uncertain steps by unknown third parties. In effect, PRESS is proposing another objective altogether, its concept of an “industrial heaven.”¹⁰⁴ But agencies need only consider those alternatives that

⁹⁷ *Hydro Resources*, CLI-01-4, 53 NRC at 55 (quoting *Citizens Against Burlington v. Busey*, 938 F.2d 190, 197 (D.C. Cir.), *cert. denied*, 502 U.S. 994 (1991)).

⁹⁸ *Id.* at 55 (quoting *City of Grapevine v. Department of Transportation*, 17 F.3d 1502, 1506 (D.C. Cir.), *cert. denied*, 513 U.S. 1043 (1994)); *see also Clinton*, CLI-05-29, 62 NRC at 805-08.

⁹⁹ *Hydro Resources*, CLI-01-4, 53 NRC at 55-56 (quoting *Citizens Against Burlington*, 938 F.2d at 196); *see also Clinton*, CLI-05-29, 62 NRC at 805-08.

¹⁰⁰ *See, e.g., Friends of Southeast’s Future v. Morrison*, 153 F.3d 1059, 1067 (9th Cir. 1998).

¹⁰¹ Petition at 40.

¹⁰² *See LBP-05-28*, 62 NRC at 617.

¹⁰³ *Hydro Resources*, CLI-01-4, 53 NRC at 54 (citing *Association of Public Agency Customers v. Bonneville Power Administration*, 126 F.3d 1158, 1188 (9th Cir. 1997)).

¹⁰⁴ *See* Second Reply at 3. On appeal, PRESS provides an “idea” of what this “industrial heaven” alternative might be like. PRESS cites to a DOE Environmental Assessment evaluating the potential impacts of a reindustrialization program at the Portsmouth Gaseous Diffusion Plant site. This is new evidence submitted improperly for the first time on appeal (in a reply brief, no less). The NRC’s Draft Environmental Impact Statement, in any event, shows that building the new USEC facility is not incompatible with developing other parts of the Piketon reservation property for industrial use. *See* DEIS at 4-115 to 4-116. The facilities and grounds currently leased to USEC for the proposed ACP, the DEIS notes, likely would be “unavailable for reindustrialization and would be expected to be used in some other way related to uranium enrichment, if not used for the ACP.” *Id.*

For the first time on appeal, PRESS also argues that the proposed facility would “result in a net loss of 623 direct jobs.” *See* Augmented Brief at 32 & n.17. This is, yet again, an improper new argument on appeal that we will not address.

We further note that PRESS on appeal also seemingly appears to challenge the DEIS, claiming that it has “similarly under-represented the benefits of the no-action alternative.” *See id.* at 30. The NRC Staff issued the DEIS in August 2005. PRESS may not seek to revive its contention on the basis of late arguments about the DEIS on appeal. Late-filed environmental contentions are governed by the procedures set forth in 10 C.F.R. § 2.309(f)(2). The claims are, nonetheless, inadequately supported, for reasons we already outlined.

can achieve the purposes of the proposed action.¹⁰⁵ When the purpose of a project “is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved.”¹⁰⁶

PRESS also argues on appeal that “AVLIS should be considered seriously as an alternative.”¹⁰⁷ While PRESS’s contention described the AVLIS alternative as “beyond USEC’s pocket,” PRESS nonetheless, and with no further elaboration, claims that it “gives the Applicant an alternative way to conduct its business once the license is denied.”¹⁰⁸ Yet as the Board found, “USEC did consider AVLIS as an alternative, eliminated it, and adequately stated its reasons for doing so in the ER.”¹⁰⁹ PRESS never challenged the AVLIS discussion in the Environmental Report. As such, the Board correctly rejected this contention on alternative site use.

G. Contention 15: National Security

Contention 15 argues that USEC has not demonstrated that the proposed facility “would advance national security goals.”¹¹⁰ In support, PRESS quotes a newspaper editorial in which Congressman David Hobson describes two particular nuclear weapons initiatives as an “unwise and unnecessary use of limited resources,” and argues that “it is hypocritical for the United States to embark on new weapons and testing initiatives” when it seeks to persuade “countries such as Iran and North Korea to abandon nuclear weapons and testing initiatives.”¹¹¹

On appeal, PRESS acknowledges that the Board “correctly point[ed] out that the Hobson editorial focuses on nuclear weapons initiatives, not enrichment technology.”¹¹² PRESS argues, however, that the editorial’s “*logic* applies directly to the ACP.”¹¹³ More specifically, PRESS argues that the Board should have been aware that “the most significant issue with Iran’s weapons program concerns their proposed . . . [uranium] enrichment plant.”¹¹⁴ PRESS claims that constructing the ACP would encourage other countries to pursue nuclear weapons.¹¹⁵

¹⁰⁵ *Hydro Resources*, 53 NRC at 55 (citing *Citizens Against Burlington*, 938 F.2d at 195).

¹⁰⁶ *Id.* at 55 (quoting *Citizens Against Burlington*, 938 F.2d at 195).

¹⁰⁷ Augmented Brief at 31.

¹⁰⁸ *Id.*

¹⁰⁹ LBP-05-28, 62 NRC at 616 (citing Environmental Report § 2.2).

¹¹⁰ Petition at 39.

¹¹¹ *Id.* at 40.

¹¹² Augmented Brief at 33 (internal quotation omitted).

¹¹³ *Id.* (emphasis in original).

¹¹⁴ *Id.*

¹¹⁵ *See* Second Reply at 5.

PRESS's generalized concerns about national security and nonproliferation do not amount to an admissible contention.¹¹⁶ The Board correctly found that PRESS offered no facts or expert opinion to support its claim that the proposed ACP would be inimical to common defense and security, and that PRESS's "policy preference for a ban on uranium enrichment does not raise a litigable issue in this proceeding."¹¹⁷

Further, the proposed contention references and thus appears to challenge the Environmental Report's statement that one purpose of the ACP is to promote the national *energy security* goals of maintaining a reliable, economical, and domestic source of uranium enrichment.¹¹⁸ The contention, however, does not specifically challenge the ACP's role in promoting these domestic energy security goals.

H. Contention 14: Application Inadequate

Contention 14 claims that USEC's Fundamental Nuclear Materials Control Plan (FNMCP) "doesn't satisfy the requirements of 10 C.F.R. § 74.13(a)," and "therefore the application is inadequate."¹¹⁹ As support, the contention merely quotes a paragraph from USEC's application, which describes USEC's request for an exemption from section 74.13(a), a rule on material status reporting procedures. The quoted section notes that USEC intends to perform material status reporting for the ACP utilizing a reporting program similar to that used for the gaseous diffusion plants, and that USEC thus requests "a similar exemption [from section 74.13(a)] to that currently in effect for the GDPs [gaseous diffusion plants]."¹²⁰

PRESS's exemption challenge is seemingly moot, as our records show that USEC no longer requests an exemption from 10 C.F.R. § 74.13(a).¹²¹ Apparently, USEC withdrew its exemption request prior to the Board's decision on PRESS's contention. But neither the NRC Staff nor USEC informed the Board, the Commission, or PRESS. We take this occasion to remind the participants of their obligation to inform the Board and Commission, as well as other litigants, of relevant new developments in a proceeding.

PRESS's contention challenging the exemption request lacked support, in any event. As the Board found, the contention "neither address[ed] the criteria for granting such an exemption nor provide[d] any discussion of why USEC's

¹¹⁶ See *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 724 (2005).

¹¹⁷ LBP-05-28, 62 NRC at 616.

¹¹⁸ See Petition at 39.

¹¹⁹ *Id.* at 38.

¹²⁰ See *id.* at 38-39 (quoting USEC Application at 1-55).

¹²¹ See License Application (Revision 6) (Aug. 2005) § 1.2.5.

requested exemption should not be granted.’’¹²² Indeed, PRESS’s contention did nothing more than quote a portion of the application, verbatim. The contention thus evinced no particular understanding of the reporting regulation at issue, or of the explanation provided by USEC in support of the exemption request.

The mere fact that an application requests an exemption from a particular regulatory provision does not render an application deficient. Our regulations specifically allow the NRC to grant exemptions that will not threaten the common defense and security, or endanger life or property, and that are otherwise in the public interest.¹²³

On appeal, PRESS raises two entirely new arguments (indeed amounting to entirely new contentions) claiming that USEC was obliged to follow other particular regulatory reporting requirements. But PRESS never presented these claims to the Board. As we have reiterated throughout this Order, it is impermissible to raise new contentions for the first time on appeal. Although PRESS’s complaint falls outside the hearing process, we expect our Staff to require that USEC meet all applicable reporting requirements.

I. Contention 13: D & D Plans Inadequate

On appeal, PRESS concedes that it did not adequately support this contention on decontamination and decommissioning plans. PRESS thus states that Contention 13 is withdrawn but “with the proviso that it lends support to our claim of unnecessary redactions.”¹²⁴

PRESS, however, cannot wait until an appeal to transfer arguments appearing under one contention to those of another. We earlier addressed PRESS’s contention on “unnecessary redactions,” which complained that some redactions in USEC’s application were not necessary, but offered no litigable claim. As originally submitted, Contention 13 did not even refer to particular redactions. It alleged a lack of information on subjects which the Board found either did not need to be addressed in the Environmental Report, or in fact already were addressed in the Environmental Report.¹²⁵

¹²² LBP-05-28, 62 NRC at 615.

¹²³ See, e.g., 10 C.F.R. § 74.7. On appeal, PRESS argues that its contention did not “challenge the exemption *per se*” because it did not have access to USEC’s Fundamental Nuclear Material Control Plan, and did not have knowledge of the material reporting program for the gaseous diffusion plants, and therefore had “no way” to evaluate the exemption request. See Augmented Appeal at 35. At no point, however, did PRESS request either access to, or any additional information on, gaseous diffusion plant material status reporting procedures or the USEC Fundamental Nuclear Material Control Plan. In short, PRESS never intimated that it needed additional information to understand the exemption request.

¹²⁴ Second Reply at 2.

¹²⁵ See LBP-05-28, 62 NRC at 614.

J. Contention 12: Radiological Impacts

Contention 12 argues that the discussion of “Radiological Impacts,” “Pathway Assessment,” “Accident Analysis,” and “Public and Occupational Expose [*sic*]” in the Environmental Report is inadequate.

The Board rejected the contention, noting that PRESS’s references to articles or correspondence, without “explanation or analysis” of their relevance, did not provide an adequate basis for admitting the contention.¹²⁶ The Board further concluded that the contention did not identify any error or omission in the Environmental Report. We agree. The contention, for example, quotes brief statements by Mr. Sergei Pashenko, a Russian physicist. Mr. Pashenko’s brief remarks are difficult to comprehend and appear largely conclusory. It is not apparent that even PRESS understands Mr. Pashenko’s statements, which it presented “without any attempt to interpret the language.”¹²⁷

On appeal, PRESS erroneously suggests that conclusory statements provide “sufficient” support for a contention, so long as they are made by an expert.¹²⁸ But “an expert opinion that merely states a conclusion (e.g., the application is ‘deficient,’ ‘inadequate,’ or ‘wrong’) without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion”¹²⁹ PRESS also argues on appeal that reports cited in the contention support the contention because they “contain more complete information than the ER.”¹³⁰ Even if true, this claim by itself does not point to an actual material deficiency in the application.

K. Contention 11: Ground and Surface Water

Contention 11 claims that the Environmental Report “does not contain a complete or adequate assessment of the potential environmental impacts of the proposed project on ground and surface water, contrary to the requirements of 10 C.F.R. 51.45.”¹³¹ Specifically, the contention challenges the Environmental

¹²⁶ *Id.* at 613.

¹²⁷ Petition at 36. Further, it is unclear just what Mr. Pashenko reviewed. It appears that he may have been provided only with the brief Environmental Report passages quoted by PRESS in the contention. For example, Mr. Pashenko apparently expresses the need for more information on the model used in the cited Environmental Report section. But the Environmental Report provides data on the model used, and neither Mr. Pashenko nor PRESS explains why this information is deficient. *See, e.g.*, Environmental Report at 3-47 to 3-50, 4-76 to 4-79, 4-110.

¹²⁸ *See* Augmented Brief at 37.

¹²⁹ *PFS*, LBP-98-7, 47 NRC at 181.

¹³⁰ Augmented Brief at 37.

¹³¹ Petition at 34.

Report's sections on "Water Resources," "Groundwater," and "Surface Water," claiming that they "fail[ed] to address . . . concerns" said to be set forth in the contention's bases.¹³² The contention's bases refer to various reports, and also quote from a letter from the Ohio Environmental Protection Agency (EPA), addressing DOE's obligations under the Resource Conservation and Recovery Act (RCRA) to perform particular activities at the Portsmouth gaseous diffusion plant site.

The Board found the contention inadmissible because "[t]he bases offered by PRESS do not contain an explanation of the significance of the information cited therein,"¹³³ and PRESS had not specified how the Environmental Report sections were deficient. The Board further noted that DOE compliance with RCRA is outside of the scope of this proceeding.

On appeal, PRESS complains that it had no obligation to explain or "paraphrase[]" the documents cited.¹³⁴ PRESS again mistakenly assumes that the Board had an obligation to search for some potential unidentified supporting information, and that this Board "responsibility . . . obviate[d] the necessity for any discussion on [PRESS's] part."¹³⁵

On its face, this contention purports to be about *potential* impacts *from the proposed project* on ground and surface water, but the Environmental Report sections cited and the references cited in the bases all appear to relate to baseline conditions. A different chapter altogether of the Environmental Report, chapter 4, addresses the potential environmental impacts of the ACP. Indeed, the Board at the prehearing conference specifically questioned PRESS's representative about whether "any of the information you're referring to . . . ha[s] anything to do with the proposed . . . ACP" facility.¹³⁶ PRESS confirmed that all of the referenced information related to historic or baseline conditions.

On appeal, PRESS refers without explanation to a 25-page section of the prehearing conference transcript, suggesting that at the conference, PRESS satisfactorily answered the Board's questions about the contention. PRESS, however, has the obligation on appeal to clearly identify asserted errors in the Board's decision,¹³⁷ an obligation that is not met by a generalized claim followed by multipage citation.

In any event, we discern no support for the contention in the transcript. At the prehearing conference, PRESS suggested that its references to baseline infor-

¹³² *See id.*

¹³³ LBP-05-28, 62 NRC at 612.

¹³⁴ Augmented Brief at 40.

¹³⁵ *Id.*

¹³⁶ Transcript at 47-48.

¹³⁷ *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), CLI-04-23, 60 NRC 154, 158 (2004).

mation are relevant to this contention because they showed that if, historically, pollutants “escaped the site, then we can expect pollutants also to escape the site under the ACP.”¹³⁸ PRESS also made the unsupported claim that a “high resolution survey [of baseline conditions] is required . . . to determine what impacts the ACP does have on the land,” and inquired about what “cumulative effects” the ACP would have.¹³⁹ These vague assertions are far from the factual or legal support we require for an admissible contention. Notably, PRESS never addressed the sections in the Environmental Report that specifically describe cumulative impacts, potential impacts to water resources, including surface and groundwater quality, or USEC’s program to control liquid effluents.¹⁴⁰

On appeal, PRESS also insists that the Ohio EPA letter that it cited, which concerns DOE compliance with RCRA, is relevant because it criticizes a report which was used as a reference in the Environmental Report. But as USEC explains, “[t]he Ohio EPA letter . . . does not take issue with any of the factual information referenced in the USEC’s ER.”¹⁴¹ In short, PRESS never established a link between the EPA letter and the challenged portions of the Environmental Report.

L. Contention 10: Independent Environmental Reporting

The contention argues that “USEC has a very poor record of self-assessment, and that an independent assessment of the environmental base-state is justified.”¹⁴² In support, PRESS claims USEC has a “documented history of misleading the NRC” and therefore “[a]ny environmental assessment for the EIS should be undertaken by an independent third party, because USEC Inc. cannot be relied upon to do that impartially.”¹⁴³ The contention also cites six enforcement actions issued by the NRC Staff to the United States Enrichment Corporation.

The Board correctly rejected the contention. The NRC Staff already is responsible for conducting an independent assessment of USEC’s Environmental Report and preparing the Environmental Impact Statement for the ACP. The Staff “will independently evaluate and be responsible for the reliability of any information which it uses” in complying with its NEPA obligations.¹⁴⁴ Moreover,

¹³⁸ Transcript at 48.

¹³⁹ *Id.*

¹⁴⁰ *See, e.g.*, Environmental Report at 2-19 to 2-23, 4-52 to 4-61, 6-2 to 6-7.

¹⁴¹ USEC Response to Augmented Appeal at 14 n.28.

¹⁴² Petition at 33.

¹⁴³ *Id.*

¹⁴⁴ 10 C.F.R. § 51.41.

as the Board found, the isolated items of “past enforcement history” cited by PRESS have no apparent direct link to the ACP application.¹⁴⁵

On appeal, PRESS acknowledges that its contention failed to meet our contention rule’s requirement to identify the disputed portions of the application, but “suggest[s]” that the contention “be read as disputing the application at any point that cited data was obtained by USEC.”¹⁴⁶ PRESS states that the “implication[]” of this contention is that “it would require any base-line environmental data in the final EIS to be obtained anew by a disinterested third party.”¹⁴⁷ PRESS’s sweeping and speculative assertions provide no basis for requiring that baseline environmental information that the NRC Staff has independently evaluated must be “obtained anew” by another party.

M. Contention 9: LLMW Exemption

On appeal, PRESS withdraws Contention 9, “subject to the contingency that we did, indeed, misapprehend the low-level waste classification issue.”¹⁴⁸ PRESS explains that Contention 9 “probably arose from our confusion between LLMW (Low Level Mixed Waste) and the [Commission’s] categorization of depleted uranium as ‘Low Level Waste’ . . . about which we had heard at the time that we submitted our petition.”¹⁴⁹ The contention had suggested that LLMW generated offsite or at another facility would be shipped to the ACP, an assumption which the Board found unsupported.¹⁵⁰ As PRESS indicates, this contention appears to be based upon a misunderstanding of the different classifications of nuclear waste, and we thus deem the contention withdrawn. In any event, as the Board found, the contention failed to raise a genuine material issue for litigation and lacked basis.

N. Contention 8: Scioto Survey

Contention 8 states that “the use of an average figure for uranium concentration in the Scioto [River] is a misleading way to characterize the transport of uranium in water,” and that “[a] full survey should be taken.”¹⁵¹ The sole basis for this contention is a paragraph quoted from USEC’s application, which includes an estimate of the average uranium concentration in the Scioto River based upon historical information.

¹⁴⁵ LBP-05-28, 62 NRC at 611.

¹⁴⁶ Augmented Brief at 41.

¹⁴⁷ *Id.*

¹⁴⁸ Second Reply at 2.

¹⁴⁹ Augmented Brief at 41.

¹⁵⁰ LBP-05-28, 62 NRC at 610-11.

¹⁵¹ Petition at 31.

On appeal, PRESS suggests that it provided support for this contention at the prehearing conference, where it explained both what was deficient about USEC's reference to an average uranium concentration in the Scioto River and what PRESS meant by calling for a "full survey" of the river. PRESS's appeal again fails to identify the particular arguments that it made before the Board, and thus fails to identify specific errors in the Board's decision. Our page limits on appeal briefs are intended to encourage parties to make their strongest arguments as concisely as possible. Thus, generalized claims followed by unelaborated references to oral arguments and multiple pages "run[] afoul" of page limitation rules.¹⁵²

Moreover, PRESS incorrectly assumes that new claims presented during oral argument before the Board can cure a deficient contention. In calling for a prehearing conference, the Board expressly advised the litigants that they were not "to make general statements or provide information not already contained in the existing filings."¹⁵³ At the prehearing conference, however, PRESS improperly presented new arguments that neither the Staff nor USEC had had an opportunity to consider and answer in their answers to PRESS's contentions. Indeed, a number of the new claims that PRESS presented effectively amounted to distinct new contentions, such as a challenge to the application's estimated probable maximum flood.¹⁵⁴ These new arguments and claims are barred on lateness grounds.

In any event, PRESS's answers at the prehearing conference do not support admission of the proposed contention. When asked what it meant by calling for a "full survey," PRESS described that it would be "something . . . like a very accurate time series modeling of storm water flow showing all the different flow fields around about 10-centimeter resolution."¹⁵⁵ Under questioning by the Board, PRESS conceded that a model that analyzes at 10-centimeter increments an area that may be approximately as large as 5 miles would be "a pretty big model," and stated that "the resolution was just suggested."¹⁵⁶ PRESS also "suggest[ed]" that the survey it seeks should be based on a geologic cross-section model provided in USEC's application, "combined with a surface model for the surface water, combined with various combinations of regular running discharges at the locations at which they're discharged and perhaps some models of extraordinary events."¹⁵⁷

¹⁵² See *Hydro Resources*, CLI-01-4, 53 NRC at 46.

¹⁵³ Memorandum and Order (July 12, 2005) (unpublished) at 2.

¹⁵⁴ See, e.g., Transcript at 9-11.

¹⁵⁵ *Id.* at 8.

¹⁵⁶ *Id.* at 18.

¹⁵⁷ *Id.* at 19.

Ultimately, the Board found PRESS's arguments unpersuasive.¹⁵⁸ Contentions admitted for litigation must be based on alleged facts or expert opinion pointing to an actual error or deficiency in the application, not petitioners' "suggestions" or ideas of additional details or description that conceivably could be included. It is always possible to come up with more details or areas of discussion that could have been included in an application or Environmental Report. A petitioner's mere "demand for more precision does not justify an NRC adjudicatory hearing."¹⁵⁹

O. Contention 7: 3.9% Feedstock

In this contention, PRESS submitted a lengthy calculation intended to show that "USEC is primarily interested in LEU [low enriched uranium] feedstock of about 3.9% assay," and that "[t]his is contrary to the general impression of the Application that the feedstock would be natural assay."¹⁶⁰ PRESS also provided its own estimate of how many containers of feedstock would be required per year, and how many containers of product would be produced. PRESS contended that "USEC should have been more forthright in the Application and quoted these figures in addition to the figures for tails."¹⁶¹

On appeal, PRESS states that its calculation of the uranium concentration of the feedstock "was, indeed, in error," and that it therefore withdraws its claim that USEC "concealed its proposed use of feedstock of higher assay than natural uranium."¹⁶² Nonetheless, PRESS maintains that the contention "stands as a claim of omission" because "USEC should have been more forthright" in its application, by providing not only the quantity of tails that the ACP will produce, but also the quantity of feedstock that will be used and the number of containers of product that will be produced.¹⁶³

PRESS claims on appeal that the absence of "the informative figures for feedstock and product . . . creat[ed] the false impression that the total quantities

¹⁵⁸ See LBP-05-28, 62 NRC at 610.

¹⁵⁹ See *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 19 (2005). Moreover, PRESS's apparent concern is that "it's not clear . . . that the uranium hexafluoride would be homogeneously dispersed throughout the Scioto [River]." See Transcript at 15. But the application and Environmental Report provide data on the *maximum* levels of uranium concentration detected at various water sampling points, including locations upstream and downstream on the Scioto River, and locations at nearby creeks. See, e.g., Environmental Report at 3-22; Application at 9-32 to 9-33. On appeal, PRESS apparently alludes to these data, but merely claims that "[d]ata from a half-dozen locations or so, as presented in the ER, seems woeful." See Second Reply at 4.

¹⁶⁰ Petition at 27.

¹⁶¹ *Id.*

¹⁶² Augmented Brief at 43.

¹⁶³ *Id.* at 44.

involved were much smaller than the actual proposal.”¹⁶⁴ PRESS’s cursory assertions about “forthright[ness]” do not point to any violation of our regulations. We nonetheless reviewed the challenged Environmental Report and application sections on depleted uranium hexafluoride tails, but noted no obvious “false” or misleading impression depicted. PRESS’s arguments on appeal are so unclear that it is difficult to discern PRESS’s ultimate concerns.¹⁶⁵ We agree with the Board that this contention neither indicated a deficiency or error in the application, nor raised a genuine material dispute within the scope of this proceeding.¹⁶⁶

P. Contention 6: Health Risks

Contention 6 asserts that the Environmental Report’s discussion of “Public and Occupational Health,” found in ER § 3.11, “dangerously underestimates the health risks and damage already effecting [*sic*] worker and public health as a result of operations on the site.”¹⁶⁷ The contention further claims that the calculations of air releases of radionuclides from operations on the site are “understated,” and that information on “‘beryllium’ exposure and ‘certain chemicals’ and their ‘health effects’ relies on contested evidence.”¹⁶⁸

As the Board pointed out, PRESS provided only “unexplained references to various documents, letters, ‘worker testimonials,’ and reports that it alleges support the contention.”¹⁶⁹ The Board therefore properly concluded that the contention’s bases were “factually unsupported, . . . unrelated to the assertions in the contention, . . . outside the scope of this proceeding, and refer to Web sites and documents . . . whose connection to the proffered contentions has not been established.”¹⁷⁰ In short, PRESS’s highly generalized references to interviews, presentations, and testimonials — many relating to incidents from 10 or more years ago — are not linked to the particular claims PRESS made in this

¹⁶⁴ *Id.*

¹⁶⁵ An appellant “bears the responsibility of clearly identifying the errors in the decision below and ensuring that its brief contains sufficient information and cogent argument to alert the other parties and the Commission to the precise nature of and support for the appellant’s claims.” *Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-94-6, 39 NRC 285, 297 (1994), *aff’d Advanced Medical Systems, Inc. v. NRC*, 61 F.3d 903 (6th Cir. 1995); *see also Davis-Besse*, CLI-04-23, 60 NRC at 158.

¹⁶⁶ LBP-05-28, 62 NRC at 610.

¹⁶⁷ Petition at 22.

¹⁶⁸ *Id.*

¹⁶⁹ LBP-05-28, 62 NRC at 606.

¹⁷⁰ *Id.* at 609.

contention, which include a challenge to particular data on year 2002 air releases of radionuclides, and information on beryllium exposure.¹⁷¹

Q. Contention 5: Domino Effect

Contention 5 claims that USEC's application "exhibits no evidence that USEC has attempted to model the catastrophic scenario associated with centrifuge cascades: the 'Domino Effect.'" The "domino effect" accident scenario is described as "proceed[ing] from the failure of one centrifuge . . . [where] [s]hapnel from the failed centrifuge destroys adjacent centrifuges."¹⁷² The contention additionally claims that the application "has not exhibited sufficient design specification data to allow the public to assess the likelihood of the occurrence of such an accident," and that "[t]his is contrary to 10 C.F.R. 70.22(h)(2)(i)(1)(ii)."¹⁷³

The Board rejected the contention on two grounds. First, it noted that "PRESS ha[d] again merely presented unrelated facts, bare assertions, and no analysis or expert opinion . . ."¹⁷⁴ Second, the Board noted that USEC in fact had evaluated a "centrifuge machine crash scenario" in its Integrated Safety Analysis (ISA), and therefore the contention erroneously had alleged an omission in the application.¹⁷⁵ The Board additionally noted that section 70.22(h)(2)(i)(1)(ii), a rule requiring submission of an emergency plan, "has nothing to do" with PRESS's assertions in this contention, and that moreover, USEC had in fact submitted an emergency plan.¹⁷⁶

On appeal, PRESS argues that it provided sufficient "analysis" to support the contention because it estimated that the ACP centrifuges "would be 290 SWU per year machines," and therefore would be "spinning very rapidly indeed."¹⁷⁷ Not only does this claim lack adequate factual or expert support, but it also does not by itself present a material dispute for litigation.

¹⁷¹ For example, the challenged section of the Environmental Report states that the Department of Labor has documented eight cases of beryllium sensitization and 14 cases of Chronic Beryllium Disease among current and former workers at the Portsmouth gaseous diffusion plant, but also makes clear that only about 1200 of a total of 28,000 personnel who have worked at the Portsmouth facility ever received a test for beryllium sensitivity. It further notes that levels of beryllium that are "significant" have been found, and that at least one credible exposure pathway has been identified. See Environmental Report at 3-82. It is unclear what, if any, of this discussion PRESS contests.

¹⁷² Petition at 20.

¹⁷³ *Id.*

¹⁷⁴ See LBP-05-28, 62 NRC at 606.

¹⁷⁵ *Id.* at 605. The Board further noted that USEC's Environmental Report states that a casing "provides physical containment of [centrifuge] components in the unlikely event of a catastrophic failure of the gas centrifuge machine" (internal quotation omitted).

¹⁷⁶ *Id.*

¹⁷⁷ Augmented Brief at 45.

As to USEC's analysis of the "domino effect" scenario in its Integrated Safety Analysis, PRESS stresses on appeal that the Integrated Safety Analysis is not publicly available. PRESS proposes "to perform [its] own physics to determine the veracity of USEC's claim to have covered [its] concern, but there is insufficient data currently available in order to make that determination."¹⁷⁸

Contentions, however, must be based on a genuine material dispute, not the possibility that petitioners, if they perform their own additional analyses, may ultimately disagree with the application. In responding to this "domino effect" contention, USEC made clear that its Integrated Safety Analysis had evaluated a centrifuge machine crash scenario. Once PRESS was made aware that this analysis in fact had been provided, it was incumbent upon PRESS to take additional action then, either to seek to review the ISA analysis, and/or to amend its contention.¹⁷⁹ Yet as USEC says, "PRESS does not even claim that it made any effort to seek access to [the ISA analysis of the machine crash scenario]."¹⁸⁰ Indeed, in PRESS's reply to USEC before the Board, PRESS nowhere even mentioned this "domino effect" contention or the availability of the ISA. It is too late now for PRESS to raise an interest in performing its own "physics" or analysis to judge the adequacy of the Integrated Safety Analysis description of a centrifuge machine crash scenario.

R. Contention 4: 10% Assay

Contention 4 claims that "USEC has not demonstrated that it has a market for 10% assay ²³⁵U," and that "USEC has exceeded its possession limit for enriched uranium previously."¹⁸¹ As bases, the contention claims that the Environmental Report does not discuss "the assay that USEC's potential or existing customers might require," and that "[i]t is not clear that USEC would suffer any disadvantage if, in an alternative scenario, it obtained a license that allowed only 5% assay."¹⁸² The petition also cites to 1998 enforcement actions taken against the United States Enrichment Corporation, which PRESS claims shows that the possession limit for enriched uranium was exceeded.

On appeal, PRESS claims that USEC's application documents "nowhere make the case that a 10% license is necessary."¹⁸³ But as USEC argues, "PRESS has not identified any requirement that USEC show that possession of 10% assay

¹⁷⁸ *Id.* at 46.

¹⁷⁹ See *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-785, 20 NRC 848, 878 (1984).

¹⁸⁰ USEC Response to Augmented Appeal at 19.

¹⁸¹ Petition at 18.

¹⁸² *Id.* at 19.

¹⁸³ Augmented Brief at 46.

enriched uranium is ‘necessary’ or any inconsistency with its proposed possession limit.”¹⁸⁴ USEC must show that the proposed facility will be consistent with public health and safety and with security, and must also demonstrate adequate financial assurance, but need not outline the reasons behind its own commercial strategies. For its part, the NRC need not gather information not pertinent to its licensing decision. The Board correctly rejected this contention on several grounds, including lack of expert or factual support, lack of materiality to any finding that the NRC must make, and no genuine material dispute.¹⁸⁵

S. Contention 3: Cylinder Labeling

Contention 3 claims that “USEC’s request for exemption from labeling UF6 cylinders is not warranted.”¹⁸⁶ In support, the contention quotes two paragraphs from USEC’s application, which discuss posting and labeling exemptions sought, and USEC’s grounds for seeking the exemptions.

The Board correctly rejected the contention, finding that PRESS had not “provided any facts or expert opinion raising a material issue with regard to the adequacy of USEC’s exemption requests.”¹⁸⁷ On appeal, PRESS states only that the contention can be “easily remedied, by denying the exemption regarding cylinder labeling,” and adds that “this would [not] be any great burden to USEC.”¹⁸⁸ PRESS points to no error in the Board’s decision.

T. Contention 2: Radiation Work Permits

In Contention 2, PRESS claims that the USEC application fails to specify the procedures that the Radiation Protection Manager would use to determine whether and where to grant an exemption from the requirement of a Radiation Work Permit. The Board rejected the contention, noting that there is “no regulatory requirement that an applicant submit its proposed radiation protection

¹⁸⁴ USEC Response to Augmented Appeal at 19.

¹⁸⁵ LBP-05-28, 62 NRC at 604. On appeal, PRESS also raises the entirely new claim that USEC must meet reporting requirements applicable to licensees with special nuclear material of moderate strategic significance. As we have stated herein, it is impermissible to raise new claims for the first time on appeal.

¹⁸⁶ Petition at 17.

¹⁸⁷ LBP-05-28, 62 NRC at 603.

¹⁸⁸ Augmented Brief at 46.

procedures at this stage of the application process.’’¹⁸⁹ PRESS identifies no error in the Board’s decision.

The Commission recognizes that PRESS has put forth effort to petition for hearing and pursue this appeal. But PRESS’s contentions do not come close to meeting our contention standards. Those standards are not designed to discourage petitioners, but to assure that those admitted to our hearings bring actual knowledge of safety and environmental issues that bear on the decision to license a facility. Our adjudicatory proceedings utilize tremendous resources — administrative, legal, and technical. We therefore have an obligation to assure that those resources are focused, squarely, on examining potential safety or environmental issues of significance. We (and the Board) have carefully examined each of PRESS’s contentions, but find none warranting full-scale litigation.

V. CONCLUSION

Both for the reasons given in LBP-05-28 and those in this decision, we find PRESS’s contentions inadmissible. The Commission *affirms* LBP-05-28.
IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 3d day of April 2006.

¹⁸⁹ LBP-05-28, 62 NRC at 603.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 40-8968-ML

HYDRO RESOURCES, INC.
(P.O. Box 777, Crownpoint,
New Mexico 87313)

April 3, 2006

REVIEW, DISCRETIONARY

The Commission has discretion to grant a petition for review, “giving due weight to the existence of a substantial question with respect to” any of the grounds listed (in the Commission’s regulations) as potential justification for review. “Review of an initial decision . . . is purely discretionary”

LAW OF THE CASE

Legal determinations made on appeal in a case are controlling precedent, becoming the “law of the case,” for all later decisions in the same case, with only limited exceptions. The “law of the case” doctrine is “a salutary rule of policy and practice, grounded in important considerations related to stability in the decision[-]making process, predictability of results, proper working relationships between trial and appellate courts, and judicial economy.” A “prior decision should be followed unless: (1) the decision is clearly erroneous and its enforcement would work a manifest injustice, (2) intervening controlling authority makes reconsideration appropriate, or (3) substantially different evidence was adduced at a subsequent trial.”

STATUTORY CONSTRUCTION

REGULATIONS: CONSTRUCTION

Courts construe regulations in the same manner as they do statutes: by ascertaining the plain meaning of the regulation. “[A] basic tenet of statutory construction, equally applicable to regulatory construction, [is] that a statute should be construed so that effect is given to all its provisions” A “regulation should be construed to effectuate the intent of the enacting body. Such intent may be ascertained by considering the language used and the overall purpose of the regulation, and by reflecting on the practical effect of the possible interpretations.” “[A]dministrative history and other available guidance may be consulted for background information and the resolution of ambiguities in a regulation’s language”

REGULATIONS: CONSTRUCTION; RETROACTIVITY

We cannot apply new regulations retroactively absent clear evidence that Congress authorized, in the statute being implemented, the issuance of retroactive regulations, and that the statute intended the regulations to be applied retroactively.

NATIONAL ENVIRONMENTAL POLICY ACT: INTERPRETATION

NATIONAL HISTORIC PRESERVATION ACT: INTERPRETATION

While agencies may coordinate their National Environmental Policy Act and National Historic Preservation Act reviews, the reviews remain separate, and the regulations associated with each Act must be independently satisfied — “coordination” does not mean that National Environmental Policy Act regulations govern National Historic Preservation Act analysis or vice versa.

MEMORANDUM AND ORDER

In LBP-05-26,¹ the Presiding Officer rejected cultural resource challenges to an *in situ* leach uranium mining license that the NRC Staff granted to Hydro Resources, Inc. (HRI) in 1998. Eastern Navajo Diné Against Uranium Mining (ENDAUM), Southwest Research and Information Center (SRIC), Grace Sam,

¹ LBP-05-26, 62 NRC 442 (2005).

and Marilyn Morris (collectively, ‘Intervenors’) have filed a petition for review.² HRI³ and the NRC Staff⁴ filed answers to the Petition for Review.

For the reasons discussed below, we decline to take review of LBP-05-26.

I. BACKGROUND

A. Regulatory Framework

The Commission’s regulations in former 10 C.F.R. § 2.1253 authorize petitions for review of a presiding officer’s initial decision, using the general processes contained in 10 C.F.R. § 2.786.⁵ “[A] party may file a petition for review with the Commission on the [following] grounds”:⁶

- (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
- (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
- (iii) A substantial and important question of law, policy or discretion has been raised;
- (iv) The conduct of the proceeding involved a prejudicial procedural error; or
- (v) Any other consideration which the Commission may deem to be in the public interest.⁷

The Commission has discretion to grant a petition for review, “giving due weight to the existence of a substantial question with respect to” any of these five grounds.⁸ Our “[r]eview of an initial decision . . . is purely discretionary”⁹

² Intervenors’ Petition for Review of LBP-05-26 (Oct. 5, 2005) (“Petition for Review”).

³ Response to Intervenors’ Petition for Review of LBP-05-26 Regarding Historic and Cultural Resource Preservation (Oct. 20, 2005).

⁴ NRC Staff’s Answer to Intervenors’ Petition to Review LBP-05-26 (Oct. 20, 2005).

⁵ This Order refers to the rule designations in our former Part 2, which now have been substantially revised and renumbered. See Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182 (Jan. 14, 2004). The revised rules do not apply to this case, which began before their promulgation.

⁶ 10 C.F.R. § 2.786(b)(1).

⁷ 10 C.F.R. § 2.786(b)(4).

⁸ *Id.*

⁹ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 17 (2003), citing *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-12, 46 NRC 52, 53 (1997).

B. Procedural History and Presiding Officer Decision

This proceeding commenced after the NRC Staff granted a materials license to HRI in January 1998, pursuant to 10 C.F.R. Part 40, to undertake *in situ* leach mining¹⁰ at four sites in McKinley County, New Mexico.¹¹ The four sites are Section 8 and Section 17 in Church Rock and Crownpoint and Unit 1 in Crownpoint.¹² They cover a large area — approximately 3192 acres, of which the project may disturb 2498,¹³ and access to the Unit 1 site is difficult.¹⁴ HRI planned to develop and mine the four sites in phases over a 20-year period.¹⁵ In consultation with the New Mexico State Historic Preservation Office, the NRC Staff initiated the process required by section 106 of the National Historic Preservation Act (NHPA).¹⁶ Pursuant to that Act, the NRC Staff conducted a general review, developed a plan for completing NHPA review of the sites on an incremental — or phased — basis (based upon planned development of the mining sites), and published its evaluation and its plans for completing its section 106 review in its Final Environmental Impact Statement (FEIS). The Presiding Officer provides additional details of this evaluation and the phased approach in his decision.¹⁷ HRI's license includes a condition that: “(1) prohibits HRI from performing any construction or development activities at any site until the NRC Staff has completed an appropriate NHPA review for that site, and (2) ensures the protection of any newly discovered cultural artifacts.”¹⁸

The Presiding Officer granted intervenors' hearing requests in May 1998. For purposes of cultural review (as well as for certain non-NHPA concerns not at issue in this decision), the Presiding Officer divided the proceeding into phases, based upon HRI's planned, geographically based, initiation of its licensed mining operations. Phase I, limited to Section 8, concluded in February 2004. For Phase II of the proceeding,¹⁹ the Presiding Officer grouped intervenors' challenges into four categories, including the one at issue here — cultural resources. The Presiding Officer found “that HRI has carried its burden of demonstrating that the intervenors' challenges relating to cultural resources do not provide a basis for invalidating HRI's license to perform ISL [*in situ* leach] uranium mining

¹⁰ LBP-05-26, 62 NRC at 450 n.4 provides an explanation of this mining process.

¹¹ *Id.* at 446-47 provides a more detailed history.

¹² Mining has not commenced at any of the sites. *Id.* at 447.

¹³ *Id.* at 450-51.

¹⁴ CLI-98-8, 47 NRC 314, 318 (1998).

¹⁵ LBP-05-26, 62 NRC at 450.

¹⁶ 16 U.S.C. § 470f.

¹⁷ LBP-05-26, 62 NRC at 450-54.

¹⁸ *Id.* at 454. The Presiding Officer also provides the text of the condition (License Condition 9.12).
Id.

¹⁹ Phase II covers the remaining sites: Section 17, Unit 1, and Crownpoint.

at Section 17, Unit 1, and Crownpoint.’’²⁰ Specifically, the Presiding Officer held that the ‘‘law of the case’’ doctrine barred intervenors’ contention that the NRC Staff violated the NHPA by using a phased compliance approach. (The Presiding Officer and the Commission had previously approved the Staff’s phased approach.²¹) The Presiding Officer also rejected intervenors’ alternative argument that the NRC Staff’s cultural resources review was inadequate. Finally, the Presiding Officer rejected intervenors’ argument that issuing a license to HRI violated the National Environmental Policy Act (NEPA) because the NRC Staff’s review of cultural resource impacts in its FEIS did not take the ‘‘hard look’’ required by NEPA.

II. ANALYSIS

Intervenors argue that the Commission should grant review of LBP-05-26 ‘‘because it contains ‘errors of material fact,’ ‘necessary legal conclusion[s]’ which are ‘in error,’ and a ‘substantial and important question of law, policy or discretion’’²² For the reasons we give below in responding to intervenors’ specific arguments, and for the reasons given by the Presiding Officer, we agree with the Presiding Officer’s holding in LBP-05-26, and see no basis for further review.

A. Law of the Case Doctrine and NHPA Regulation Revisions

Intervenors latch on to a recent revision of the NHPA regulations in a bid to reopen issues we decided in this proceeding several years ago — in 1998²³ and 1999.²⁴ In those decisions, we found that the NHPA regulations then in effect and applicable to the application allowed a phased (site-by-site) approach to cultural

²⁰ *Id.* at 476.

²¹ See CLI-98-8, 47 NRC 314 (1998); CLI-99-22, 50 NRC 3 (1999).

²² Petition for Review at 4.

²³ CLI-98-8, 47 NRC at 323-24 (‘‘[W]e are not convinced . . . that the NRC and HRI are prohibited from taking a ‘phased review’ approach to complying with the NHPA’’).

²⁴ CLI-99-22, 50 NRC at 12-13 (‘‘While the previous adjudicatory decisions concerned a stay motion, we see no reason to depart from our fundamental conclusion that phased compliance is acceptable under applicable law’’).

impact review.²⁵ Intervenors now argue that we should revisit our earlier decisions because of subsequent revisions to the NHPA regulations.

We agree with the Presiding Officer that the “law of the case” doctrine forecloses Intervenors’ arguments. Briefly stated, legal determinations made on appeal in a case are controlling precedent, becoming the “law of the case,” for all later decisions in the same case.²⁶ The “law of the case” doctrine is “a salutary rule of policy and practice, grounded in important considerations related to stability in the decision[-]making process, predictability of results, proper working relationships between trial and appellate courts, and judicial economy.”²⁷ Intervenors argue that the “law of the case” doctrine is a flexible concept,²⁸ with exceptions that apply here. However, “[t]he litany of exceptional circumstances sufficient to sidetrack the law of the case is not only short, but

²⁵ At that time, the NHPA regulations disclaimed any intent “to prohibit phased compliance”:

Section 106 requires the Agency Official to complete the section 106 process prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license or permit. The Council does not interpret this language to bar an Agency Official from expending funds on or authorizing nondestructive planning activities preparatory to an undertaking before complying with section 106, or to prohibit phased compliance at different stages in planning. The Agency Official should ensure that the section 106 process is initiated early in the planning stages of the undertaking, when the widest feasible range of alternatives is open for consideration. The Agency Official should establish a schedule for completing the section 106 process that is consistent with the planning and approval schedule for the undertaking.

36 C.F.R. § 800.3(c); Final Rule: “Protection of Historic Properties,” 51 Fed. Reg. 31,115, 31,120 (Sept. 2, 1986).

Moreover, the immediately preceding section endorsed a “flexible” implementation of NHPA requirements:

The Council recognizes that the procedures for the Agency Official set forth in these regulations may be implemented by the Agency Official in a flexible manner reflecting [*sic*] differing program requirements, as long as the purposes of section 106 of the Act and these regulations are met.

36 C.F.R. § 800.3(b), 51 Fed. Reg. at 31,120.

In reaching our early NHPA decisions we evaluated these two sections of the NHPA regulations. See CLI-98-8, 47 NRC at 323-24, CLI-99-22, 50 NRC at 12-13.

²⁶ See *Cohen v. Brown University*, 101 F.3d 155, 167-68 (1st Cir. 1996), *cert. denied*, 520 U.S. 1186 (1997); *Rainbow Magazine, Inc. v. Unified Capital Corp.*, 77 F.3d 278, 281 (9th Cir. 1996); *Delong Equipment Co. v. Washington Mills Electro Minerals Corp.*, 990 F.2d 1186, 1196 (11th Cir.), *cert. denied*, 510 U.S. 1012 (1993); *United States v. Rivera-Martinez*, 931 F.2d 148, 150 (1st Cir.), *cert. denied*, 502 U.S. 862 (1991); *Safety Light Corp.* (Bloomsburg Site Decontamination), CLI-92-9, 35 NRC 156, 159-60 (1992).

²⁷ *Rivera-Martinez*, 931 F.2d at 151.

²⁸ Intervenors cite *Cohen*, 101 F.3d at 168, *United States v. Connor*, 926 F.2d 81, 83 (1st Cir. 1991), and *Aldens, Inc. v. Miller*, 610 F.2d 538, 541 (8th Cir. 1979).

narrowly cabined.’’²⁹ A ‘‘prior decision should be followed unless: (1) the decision is clearly erroneous and its enforcement would work a manifest injustice, (2) intervening controlling authority makes reconsideration appropriate, or (3) substantially different evidence was adduced at a subsequent trial.’’³⁰ We find that none of the exceptions applies here.

Intervenors argue that certain recent revisions of the NHPA regulations amount to controlling ‘‘new authority’’ that justifies reconsidering our earlier decisions because the revisions clarify language we previously found ambiguous. Alternatively, Intervenors maintain, the ‘‘new authority,’’ even if not controlling, would have led to a different outcome had it been available at the time of our earlier decisions. Neither argument has merit. For Intervenors’ arguments to prevail, the ‘‘new authority’’ clarifying the prior ‘‘ambiguity’’ would have to indicate that our earlier interpretation of the NHPA regulations was wrong. Instead, the new regulations confirm that our interpretation was correct: the NHPA regulations continue to expressly *permit* a phased approach to cultural resource review.

As Intervenors concede,³¹ the new regulations merely provide details on how to *implement* a phased NHPA review³²; for Intervenors’ argument to make sense, the revisions would have had to *prohibit* phased NHPA evaluations. As our 1998 decision makes clear, the ‘‘ambiguity’’ we noted in the NHPA regulations was not an ambiguity with respect to how to implement a phased approach, but rather

²⁹ *Rivera-Martinez*, 931 F.2d at 151.

³⁰ *Rainbow Magazine*, 77 F.3d at 281. See *Rivera-Martinez*, 931 F.2d at 151; *Cohen*, 101 F.3d at 168.

³¹ Petition for Review at 6, 7-8.

³² The Advisory Council on Historic Preservation made the relevant revisions to the NHPA regulations in 2000. Under the revised regulations, the discussion of phased compliance is moved from 36 C.F.R. § 800.3 to § 800.4. The new language provides:

Phased identification and evaluation. Where alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process to conduct identification and evaluation efforts. The agency official may also defer final identification and evaluation of historic properties if it is specifically provided for in a memorandum of agreement executed pursuant to § 800.6, a programmatic agreement executed pursuant to § 800.14(b), or the documents used by an agency official to comply with the National Environmental Policy Act pursuant to § 800.8. The process should establish the likely presence of historic properties within the area of potential effects for each alternative or inaccessible area through background research, consultation and an appropriate level of field investigation, taking into account the number of alternatives under consideration, the magnitude of the undertaking and its likely effects, and the views of the [State Historic Preservation Officer/Tribal Historic Preservation Officer] and any other consulting parties. As specific aspects or locations of an alternative are refined or access is gained, the agency official shall proceed with the identification and evaluation of historic properties in accordance with paragraphs (b)(1) and (c) of this section.

(Continued)

an ambiguity over the more basic question of whether the NHPA permits a phased approach at all:

Finally, as to the irreparability of NHPA harm, we are not convinced by Petitioners' argument that the NRC and HRI are prohibited from taking a "phased review" approach to complying with the NHPA — the legal position that forms the foundation of Petitioners' NHPA arguments regarding severe, immediate, and irreparable injury. The statute itself contains no such prohibition, federal case law suggests none, and the supporting regulations are ambiguous on the matter, even when read in the light most favorable to Petitioners.³³

The "clarification" Intervenor rely on does not alter our original interpretation that the NHPA permits a phased approach to the evaluation of cultural impacts. In fact, the "clarification" confirms that we correctly resolved the ambiguity.³⁴ Thus, no change in law justifies reexamining our earlier decision, and no exception to the law of the case doctrine applies.

B. Adequacy of NHPA Review Under Prior NHPA Regulations

Intervenor insist that they do not seek retroactive application of the new NHPA regulations. They argue that the new regulations illuminate the old regulations, making it "clear" that the phased cultural review plan we approved earlier in this proceeding is not consistent with the NHPA.³⁵ In other words, Intervenor advocate using the new regulations to show what the original drafters intended

36 C.F.R. § 800.4(b)(2), Final Rule: "Revision of Current Regulations, Protection of Historic Properties," 65 Fed. Reg. 77,698, 77,729 (Dec. 12, 2000).

The explanation for the revision was as follows:

This new section is also intended to provide Federal agencies with flexibility when several alternatives are under consideration and the nature of the undertaking and its potential scope and effect has therefore not yet been completely defined. The section also allows for deferral of final identification and evaluation if provided for in an agreement with the SHPO/THPO or other circumstances. Under this phased alternative, Agency Officials are required to follow up with full identification and evaluation once project alternatives have been refined or access has been gained to previously restricted areas. Any further deferral of final identification would complicate the process and jeopardize an adequate assessment of effects and resolution of adverse effects.

65 Fed. Reg. at 77,719 (footnote omitted).

³³ CLI-98-8, 47 NRC at 323-24.

³⁴ While, as the Presiding Officer indicated, applying the new NHPA regulations in the instant proceeding could only be considered retroactive, it is not at all clear that the phased compliance process established in this proceeding would fail to satisfy the new regulations if they did apply. *See* LBP-05-26, 62 NRC at 459 nn.9-10 & accompanying text.

³⁵ Petition for Review at 7-8.

when they drafted the old regulations. Intervenors go on to argue that once we know, via the *new* regulations, what a phased approach under the *old* regulations was supposed to look like, we will understand that the NRC Staff's NHPA phased review approach was inadequate, *under the old regulations*. We reject this circular interpretation.

Courts construe regulations in the same manner as they do statutes: by ascertaining the plain meaning of the regulation.³⁶ “[A] basic tenet of statutory construction, equally applicable to regulatory construction, [is] that a statute should be construed so that effect is given to all its provisions”³⁷ A “regulation should be construed to effectuate the intent of the enacting body. Such intent may be ascertained by considering the language used and the overall purpose of the regulation, and by reflecting on the practical effect of the possible interpretations.”³⁸ “[A]dministrative history and other available guidance may be consulted for background information and the resolution of ambiguities in a regulation’s language”³⁹ Thus, when we initially considered the NHPA issue, we could appropriately examine the language of the NHPA regulation, and any legislative and rulemaking history, to aid us in interpreting the regulation. On the other hand, we could not base our decision on speculation about future changes that drafters might make. Nor should we now retroactively attribute certain motivations to the original drafters based on later revisions to the regulations.

Because the Presiding Officer’s decision, like ours, hinges upon the law of the case doctrine, the Presiding Officer did not construe the new regulations, but “assume[d] (without deciding) the correctness of the Intervenors’ assertion that the phased compliance approach toward NHPA review in HRI’s license is unlawful under the new regulations.”⁴⁰ Before the Presiding Officer, Intervenors argued that the new regulations prohibit phased compliance if operational sites have been selected and alternatives regarding “large land areas” are no longer under consideration.⁴¹ Thus, in Intervenors’ view, the NRC Staff ought not have issued a license to HRI until after the entire NHPA review was complete. But, as the Presiding Officer correctly understood, Intervenors’ argument goes beyond

³⁶ See, e.g., *Tesoro Hawaii Corp. v. United States*, 405 F.3d 1339, 1346 (Fed. Cir. 2005), *Time Warner Entertainment Co. L.P., v. Everest Midwest Licensee, L.L.C.*, 381 F.3d 1039, 1050 (10th Cir. 2004).

³⁷ *Silverman v. Eastrich Multiple Investor Fund, L.P.*, 51 F.3d 28, 31 (3d Cir. 1995) (internal quotation and citation omitted). See also *Florez v. Callahan*, 156 F.3d 438, 443 (2d Cir. 1998), *Idahoan Fresh v. Advantage Produce, Inc.*, 157 F.3d 197, 202 (3d Cir. 1998).

³⁸ *United States v. Christensen*, 419 F.2d 1401, 1403-04 (9th Cir. 1969) (citation omitted).

³⁹ *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-900, 28 NRC 275, 288 (citations omitted), *review denied*, CLI-88-11, 28 NRC 603 (1988). See also *Connecticut Yankee Atomic Power Co.* (Haddam Neck Plant), LBP-01-25, 54 NRC 177, 184 (2001).

⁴⁰ LBP-05-26, 62 NRC at 459 n.9.

⁴¹ *Id.* at 458.

suggesting a “change in controlling authority” and in fact advocates retroactive application of the new regulations. As the Presiding Officer stated,⁴² we cannot apply the new regulations retroactively absent clear evidence that Congress authorized under the NHPA the issuance of retroactive regulations, and that the NHPA intended the regulations to be applied retroactively. We, like the Presiding Officer, do not find such clear evidence here. Furthermore, as discussed above, the phased approach is consistent with the regulations in place when the NRC Staff made its licensing decision, and is consistent with the purposes and goals of the NHPA.

C. Adequacy of NEPA Review of Cultural Resources in the NRC Staff’s FEIS

Intervenors also criticize the adequacy of the NRC Staff’s cultural resource evaluation under NEPA. But, as with the closely related NHPA issues, the “law of the case” doctrine bars Intervenors’ complaints about the adequacy of the phased identification and evaluation approach adopted in the NRC Staff’s FEIS. Again, Intervenors are asking us, essentially, to reevaluate the “phased” concept approved in our prior decisions. For the reasons given in our earlier decisions, and for the reasons set forth above, we decline to revisit the validity of the “phased” approach.

Intervenors argue that the NRC Staff has not taken the “hard look” required under NEPA because evaluating the cultural resource impact on a section-by-section basis fails to look at the cumulative effect of the entire project. In Intervenors’ view, workers could make a significant archaeological find on each parcel, but evaluators could miss the full significance of the individual discoveries because the phased approach will not evaluate the “whole.”

Intervenors point to the NEPA definition of “cumulative impact” to support their argument. Under NEPA, a

“[c]umulative impact” is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.⁴³

Intervenors argue that to take the NEPA-required “hard look” at all significant

⁴² *Id.* at 462.

⁴³ 40 C.F.R. § 1508.7. *See generally* CLI-01-4, 53 NRC 31, 57-64 (2001).

consequences of the project,⁴⁴ the consequences of the entire project must be examined at one time,⁴⁵ and cannot be looked at piecemeal.⁴⁶ But Intervenor treat the reservation of certain NHPA considerations (on a phased, site-specific basis) as though the FEIS failed to evaluate the overall impacts on cultural resources of the entire project for NEPA purposes. Intervenor's position ignores the comprehensive NEPA evaluation conducted by the NRC Staff, documented in the FEIS, and approved by the Presiding Officer.⁴⁷

Intervenor argues that because agencies may coordinate their NHPA and NEPA responsibilities, the Presiding Officer erred when he said that "the 'hard look' required by NEPA is not to be equated with completion of the NHPA review."⁴⁸ We disagree with Intervenor and find that the Presiding Officer correctly analyzed the interaction between the NHPA regulations and our NEPA regulations.⁴⁹ While agencies may coordinate their NEPA and NHPA reviews, the reviews remain separate, and the regulations associated with each Act must be independently satisfied — "coordination" does not mean that NEPA regulations govern NHPA analysis or vice versa. While the FEIS is a useful vehicle for setting out the NRC's NHPA review, using the FEIS device does not oblige the agency to complete all its NHPA work prior to licensing when a "phased" approach is appropriate.

The Presiding Officer described the NRC Staff's NEPA review in detail,⁵⁰ and concluded that the NRC Staff took the "hard look" required under NEPA: "Staff explained the purpose of its inquiry, described its methods for conducting the inquiry, identified cultural resources in and near the project area, considered HRI's proposed project and alternatives, discussed mitigation measures, provided the DEIS for public comments, responded to those comments, and ultimately concluded that HRI's project posed no significant risk of harm to cultural resources."⁵¹ We agree with the Presiding Officer's analysis of the adequacy of the NRC Staff's NEPA analysis.

⁴⁴ Petition for Review at 8, citing *Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.* 462 U.S. 87, 97 (1983).

⁴⁵ Petition for Review at 10, citing *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990).

⁴⁶ Petition for Review at 10, citing *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214 (9th Cir. 1998).

⁴⁷ See LBP-05-26, 62 NRC at 472-76.

⁴⁸ Petition for Review at 8, quoting LBP-05-26, slip op. at 35 (now, 62 NRC at 472).

⁴⁹ See LBP-05-26, 62 NRC at 472.

⁵⁰ *Id.* at 472-476.

⁵¹ *Id.* at 476.

III. CONCLUSION

For the foregoing reasons, we deny Intervenors' Petition for Review of LBP-05-26.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 3d day of April 2006.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. IA-05-021

ANDREW SIEMASZKO

May 3, 2006

RULES OF PRACTICE: INTERLOCUTORY APPEALS

The Commission's regulations do not provide a right to appeal interlocutory orders.

RULES OF PRACTICE: INTERLOCUTORY APPEALS

Section 2.341(f)(2) of 10 C.F.R. allows discretionary interlocutory review if the challenged Board decision threatens "immediate and serious irreparable impact" or "[a]ffects the basic structure of the proceeding in a pervasive or unusual manner." The effect of the Board decision in this proceeding is "pervasive" and "unusual" — both in time and scope — because the Board's March 2 Order stops the entire proceeding in its tracks and because the Commission and its boards have rarely, if ever, held an enforcement proceeding in abeyance for an indeterminate length of time.

RULES OF PRACTICE: ABEYANCE

In *Oncology Services Corp.*, CLI-93-17, 38 NRC 44 (1993), the Commission held that five factors need to be balanced when deciding whether to delay an enforcement proceeding: length of delay, reason for delay, prejudice to the

recipient of the enforcement order, risk of erroneous deprivation, and recipient's assertion of a right to a hearing.

RULES OF PRACTICE: DEFERENCE TO BOARDS

The Commission usually defers to boards' fact-based decisions. *See, e.g., Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 1; Sequoyah Nuclear Plant, Units 1 and 2; Browns Ferry Nuclear Plant, Units 1, 2, and 3), CLI-04-24, 60 NRC 160, 189 (2004).

RULES OF PRACTICE: ABEYANCE

The Commission's decision in *Oncology*, while not specifying the exact point after which a delay in an enforcement proceeding becomes unacceptable, does indicate that delay is particularly problematic in cases involving witness testimony. *Oncology Services Corp.*, CLI-93-17, 38 NRC at 53. In witness-intensive cases, delay would "be tolerable only if the Staff can demonstrate an important government interest coupled with factors minimizing the risk of an erroneous deprivation." *Id.*

RULES OF PRACTICE: ABEYANCE

Enforcement cases are, by their very nature, fact-specific and typically rely far more on witness testimony than do licensing adjudications. For this reason, the Commission believes that the testimony of witnesses will likely prove significant in such proceedings. In theory at least, a long delay could result in the fading of witnesses' memories and runs the risk of witnesses' unavailability. *Id.*, CLI-93-17, 38 NRC at 59. *See also Dr. James E. Bauer* (Order Prohibiting Involvement in NRC-Licensed Activities), LBP-94-40, 40 NRC 323, 330 (1994), *petition for review denied on other grounds*, CLI-95-3, 41 NRC 245 (1995).

RULES OF PRACTICE: ABEYANCE

Where the length of the requested delay would depend on factors outside the Commission's control, the absence of control weighs against holding the case in abeyance. *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 39 (2001).

RULES OF PRACTICE: ABEYANCE

The party supporting abeyance based on the pendency of a criminal case

involving the same facts carries the burden of proof (10 C.F.R. § 2.325) and must make at least *some* showing of potential detrimental effect on the criminal case. *See generally Oncology Services Corp.*, CLI-93-17, 38 NRC at 53-57.

RULES OF PRACTICE: ABEYANCE

The weight to be given the proponent's reason for seeking an abeyance turns on the quality of the factual record on which the proponent relies.

RULES OF PRACTICE: ABEYANCE

When issuing the Federal Rules of Criminal Procedure, the Supreme Court (with implicit congressional approval, 28 U.S.C. §§ 2072-2074) prescribed the disclosures necessary for a fair balance between criminal defendants' and prosecutors' interests.

RULES OF PRACTICE: ABEYANCE

The Commission (and its Board's) decision to pay heed to DOJ's concern about possible prejudice to its criminal prosecution in this case is driven to a considerable extent by the Commission's long-established policy — memorialized in a formal Memorandum of Understanding — of deferring to DOJ when it seeks a delay in our enforcement proceedings pending the conclusion of DOJ's own criminal investigations or proceedings. Memorandum of Understanding Between the Nuclear Regulatory Commission and the Department of Justice, 53 Fed. Reg. 50,317, 50,319 (Dec. 14, 1988). The Commission does not lightly second-guess DOJ's views on whether, and how, premature disclosures might affect its criminal prosecutions.

RULES OF PRACTICE: ABEYANCE

When determining whether good cause exists for holding a proceeding in abeyance, the decisionmaker "must consider both the public interest as well as the interests of the person subject to the immediately effective order," and "[t]he determination of whether a delay is reasonable depends on the facts of a particular case and requires a balancing of the[se] competing interests." *Oncology Services Corp.*, CLI-93-17, 38 NRC at 49-50 (footnote omitted).

RULES OF PRACTICE: ABEYANCE

An indeterminate length of the delay (the first *Oncology* factor) weighs against granting an abeyance, due to the delay's potentially adverse effect on testimony.

RULES OF PRACTICE: ABEYANCE

An actual assertion of a hearing right (*Oncology*'s fifth factor) weighs against granting the abeyance. But this factor is, by its nature, merely procedural, and consequently is of little importance when balancing real-life equities.

MEMORANDUM AND ORDER

On March 2, 2006, the Licensing Board in this matter issued a split decision granting a motion by the NRC Staff to hold this enforcement proceeding in abeyance, pending a criminal action against Andrew Siemaszko in Federal District Court.¹ The dissenting judge would have denied the motion. On March 10, Mr. Siemaszko appealed the Board's decision.² We affirm.

I. BACKGROUND

This adjudication stems from an "Order Prohibiting Involvement in NRC-Licensed Activities" ("Enforcement Order") which the NRC Staff issued to Mr. Siemaszko on April 21, 2005.³ The Enforcement Order found that Mr. Siemaszko had violated 10 C.F.R. § 50.5 by making material false statements in a matter within the NRC's jurisdiction. More specifically, the Enforcement Order found that Mr. Siemaszko, while working as a systems engineer at the Davis-Besse Nuclear Power Station ("Davis-Besse") in Ohio, "deliberately provided materially incomplete and inaccurate information" in a condition report and a work order, "that are records that the NRC requires the Licensee to maintain." The NRC Staff determined that this information "was material to the NRC because the presence of boric acid deposits on the [reactor pressure vessel] head is a significant condition adverse to quality that went uncorrected, in part," due to

¹ Unpublished "Memorandum and Order," ADAMS Accession No. ML060610647 ("March 2 Order"). (ADAMS is the acronym for the NRC's Agencywide Documents Access and Management System, which is publicly accessible through the NRC's Web page at <http://www.nrc.gov>).

² Appeal of the Atomic Safety and Licensing Board's March 2, 2006 Order To Hold the Enforcement Proceeding Against Andrew J. Siemaszko in Abeyance, dated March 10, 2006 ("Appeal").

³ 70 Fed. Reg. 22,719 (May 2, 2005).

Mr. Siemaszko's actions. As such, the NRC Staff found that Mr. Siemaszko had "engaged in deliberate misconduct" that caused FENOCO (First Energy Nuclear Operating Company, the plant operator) to be in violation of NRC regulations.⁴

Two years after Mr. Siemaszko prepared those documents, FENOCO discovered that an acid leak had eaten a hole through the entire 6.63-inch-thick low-alloy steel cap on the reactor head — leaving only the 0.202- to 0.314-inch-thick stainless steel clad material as the remaining reactor coolant system protection boundary. This discovery led to an NRC inspection which, among other things, resulted in the 2005 Enforcement Order at issue here. The Enforcement Order found Mr. Siemaszko in violation of section 50.5 and prohibited him from involvement in NRC-licensed activities for 5 years from the Enforcement Order's effective date.⁵ Upon receiving the Enforcement Order, Mr. Siemaszko sought and was granted a hearing before the Board.⁶

At the same time that the NRC was conducting its investigation and considering enforcement action, the United States Department of Justice (DOJ) was investigating criminal charges against Mr. Siemaszko. On January 19, 2006, a Federal Grand Jury in the United States District Court for the Northern District of Ohio issued a felony indictment charging Mr. Siemaszko with "willfully causing material facts to be concealed from the NRC."⁷

From the beginning of the instant adjudication, both the NRC Staff and DOJ have articulated concerns that the Commission enforcement proceeding against Mr. Siemaszko could compromise the federal criminal investigation and prosecution in Ohio. As a result, the Staff has requested, and the Board has granted, four separate stays of this proceeding.⁸ The most recent request was for

⁴ See *id.* at 22,721.

⁵ The Enforcement Order, by its terms, does not become effective until the end of the enforcement hearing process. *Id.*

⁶ Unpublished Board "Order (Granting Licensee's Hearing Request)," dated May 19, 2005, ADAMS Accession No. ML051390490.

⁷ Indictment, *United States v. David Geisen, Rodney Cook, and Andrew Siemaszko*, Case No. 3:06CR712, Jan. 19, 2006, appended as "Attachment A" to NRC Staff Motion To Hold the Proceeding in Abeyance, dated Feb. 1, 2006. (Mr. Geisen is the subject of a separate NRC enforcement proceeding.)

⁸ See NRC Staff Motion for Delay of Proceeding, dated May 17, 2005, *granted*, unpublished "Memorandum and Order (Granting the NRC Staff's Motion for a 120-Day Delay of Proceedings and Setting Case Schedule)," dated July 22, 2005, ADAMS Accession No. ML052030119 ("July 22 Order"); NRC Staff Motion To Extend the Stay of the Proceeding, dated Aug. 19, 2005, *granted*, unpublished "Memorandum and Order (Granting the NRC Staff's Motion for a Stay of This Proceeding Until November 30, 2005)," dated Sept. 29, 2005, ADAMS Accession No. ML052720399 ("Sept. 29 Order"); NRC Staff Motion To Extend the Stay of the Proceeding, dated Dec. 6, 2005, *granted*, Unpublished Board "Memorandum and Omnibus Order," dated Dec. 22, 2005, at 5, ADAMS

(Continued)

a stay of indeterminate length, which a split Board granted in its March 2 Order and which is before us today.

Specifically, the Board's March 2 Order suspends the adjudicatory proceeding "until the conclusion of the pending criminal proceeding, or until the NRC Staff advises the Board that this proceeding may move forward without having an inappropriate impact on the criminal proceeding."⁹ The Board's Order also requires the NRC Staff to file periodic status reports and gives Mr. Siemaszko the right to ask the Board to reconsider its March 2 Order "at any time . . . on a showing of materially changed circumstances."¹⁰

II. GRANT OF MR. SIEMASZKO'S PETITION FOR INTERLOCUTORY REVIEW

Our regulations do not provide a right to appeal interlocutory orders like the Board's March 2 Order. Consequently, we will treat Mr. Siemaszko's "Appeal" as a petition for interlocutory review under 10 C.F.R. § 2.341(f)(2), which allows such review if the challenged Board decision threatens "immediate and serious irreparable impact" or "[a]ffects the basic structure of the proceeding in a pervasive or unusual manner." Here, the effect of the Board decision is "pervasive" and "unusual" — both in time and scope — because the Board's March 2 Order stops the entire proceeding in its tracks and because the Commission and its boards have rarely, if ever, held an enforcement proceeding in abeyance for an indeterminate length of time. We therefore grant interlocutory review.

III. AFFIRMANCE OF BOARD'S MARCH 2 ABEYANCE ORDER

In *Oncology Services Corp.*,¹¹ we held that five factors need to be balanced when deciding whether to delay an enforcement proceeding: length of delay, reason for delay, prejudice to the recipient of the enforcement order, risk of erroneous deprivation, and recipient's assertion of a right to a hearing. As explained below, we agree with the Board that the five *Oncology* factors, on balance, favor holding this proceeding in abeyance to await the outcome of the

Accession No. ML053620283 ("Dec. 22 Order"); NRC Staff Motion To Hold the Proceeding in Abeyance, dated Feb. 1, 2006, *granted*, March 2 Order. *See also* NRC Staff's Application for a Temporary Stay To Preserve the Status Quo, dated Aug. 19, 2005, *granted*, unpublished "Order (Granting Temporary Stay To Maintain the Status Quo)," dated Sept. 14, 2005, ADAMS Accession No. ML052570709.

⁹ March 2 Order at 2.

¹⁰ *Id.*

¹¹ CLI-93-17, 38 NRC 44 (1993).

parallel criminal proceeding or other developments that might warrant lifting the March 2 Order.

In reaching this decision, we rely particularly on: the interlocking nature of the Grand Jury indictment and the NRC Enforcement Order; our Memorandum of Understanding with DOJ committing us to prevent our hearing process from being used to compromise criminal prosecutions;¹² the possibility that discovery in this enforcement proceeding would do just that; and, as recognized by Mr. Siemaszko, the circumstance that, by virtue of his indictment, he already is unemployable in the nuclear industry¹³ — making speedy action on the NRC Staff’s Enforcement Order less vital than in the usual case. Our bottom line here is that Mr. Siemaszko will suffer only negligible harm if there is a further delay in our proceeding — even a potentially lengthy one — whereas the government could be substantially harmed if we were to prematurely require discovery and a hearing. We also observe that affirming the Board’s March 2 Order is consistent with our usual deference to boards’ fact-based decisions.¹⁴

A. Length of Delay

The events at issue here occurred between 4 and 6 years ago, and Mr. Siemaszko’s hearing has already been stayed for 9 months — since July 22, 2005. The Board, by granting the NRC Staff’s motion for abeyance, has now further extended that stay until the conclusion of the criminal proceeding, or until the Staff advises that resumption of the proceeding will not have a negative impact upon the criminal proceeding — both events without a date certain. Mr. Siemaszko asserts on appeal that this “unknowable” delay imposes on him an unacceptable and unfair burden.

Our decision in *Oncology*, while not specifying the exact point after which a delay in an enforcement proceeding becomes unacceptable, does indicate that delay is particularly problematic in cases involving witness testimony:

[T]o appreciate whether the delay is excessive one must analyze the nature of the proceeding. [Citation omitted.] For example, a delay may require a strong justification in a proceeding to revoke a license which depends to a great extent on the testimony of witnesses. However, in a civil penalty proceeding . . . depend[ing] less on witness testimony, a delay may need less justification.¹⁵

¹² Memorandum of Understanding Between the Nuclear Regulatory Commission and the Department of Justice, 53 Fed. Reg. 50,317, 50,319 (Dec. 14, 1988).

¹³ Appeal at 8.

¹⁴ See, e.g., *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 1; Sequoyah Nuclear Plant, Units 1 and 2; Browns Ferry Nuclear Plant, Units 1, 2, and 3), CLI-04-24, 60 NRC 160, 189 (2004).

¹⁵ *Oncology*, CLI-93-17, 38 NRC at 53.

In witness-intensive cases, delay would “be tolerable only if the Staff can demonstrate an important government interest coupled with factors minimizing the risk of an erroneous deprivation.”¹⁶

Enforcement cases are, by their very nature, fact-specific and typically rely far more on witness testimony than do licensing adjudications. For this reason, we believe that the testimony of witnesses will likely prove significant here. In theory at least, a long delay could result in the fading of witnesses’ memories¹⁷ and runs the risk of witnesses’ unavailability. There is, however, no particular information in the record here that either access to witnesses or the witnesses’ memories will prove a problem. We nonetheless agree with the Board that the first factor (the open-ended nature of the delay) weighs against delaying this proceeding further.¹⁸

B. Reason for Delay

The NRC Staff’s mere assertion that it wishes to protect DOJ’s pending criminal prosecution of Mr. Siemaszko does not, without more, justify holding our parallel administrative proceeding in abeyance. The Staff, as the party supporting abeyance (and therefore carrying the burden of proof¹⁹), must make at least *some* showing of potential detrimental effect on the criminal case.²⁰ Here, the Staff maintains that Mr. Siemaszko might use the Commission’s generous discovery rules²¹ to obtain evidence that would be unavailable to him under Rule 16 of the Federal Rules of Criminal Procedure.²² The Staff is also concerned that the evidence might then be improperly used to undermine the criminal

¹⁶ *Id.*

¹⁷ *Id.*, CLI-93-17, 38 NRC at 59. See also *Dr. James E. Bauer* (Order Prohibiting Involvement in NRC-Licensed Activities), LBP-94-40, 40 NRC 323, 330 (1994), *petition for review denied on other grounds*, CLI-95-3, 41 NRC 245 (1995).

¹⁸ The Board pointed out that the length of the requested delay would depend on factors outside the Commission’s control, such as the trial schedule of the Northern District of Ohio. See March 2 Order at 2. We agree that this absence of control weighs against holding the case in abeyance pending the conclusion of the criminal proceeding in the federal courts (perhaps including appeals). Certainly a stay of indeterminate length would adversely affect our own “ability to plan and allocate resources for adjudicatory proceedings . . . by having a . . . proceeding lurking on the agency case docket, pending on a timetable to be triggered only by, and thus subject to the exclusive knowledge and control of,” an entity other than ourselves. *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 39 (2001).

¹⁹ 10 C.F.R. § 2.325.

²⁰ See Sept. 29 Order at 5 n.7. See generally *Oncology*, CLI-93-17, 38 NRC at 53-57.

²¹ 10 C.F.R. §§ 2.704-2.709.

²² Fed. R. Crim. P. 16, *found in* 18 U.S.C. For instance, Rule 16 does not automatically provide for discovery using interrogatories and depositions, while our own rules do (10 C.F.R. § 2.706).

proceeding. For support, the Staff relies on five DOJ affidavits.²³ The Board accepted the Staff's argument and found that the Staff's (and, ultimately, DOJ's) concerns about excessive discovery weighed in favor of holding the enforcement proceeding in abeyance.²⁴

The Staff's concerns must be considered to be serious ones. Indeed, we expressed similar concerns when approving two lengthy stays (totaling 210 days) in the *Oncology* enforcement case.²⁵ But the weight to be given the Staff's reason for seeking an abeyance turns on the quality of the *factual record* — i.e., DOJ's five affidavits supporting this and earlier delays. It was on this issue that the Board split. The two-judge majority found sufficient factual support in DOJ's affidavits, while the dissenting judge found the risks to the criminal prosecution minimal. The dissenting judge pointed to Mr. Siemaszko's departure from FENOCO, his consequent lack of supervisory control over potential witnesses, his lack of access to corporate databases and records, his limited financial resources, his residence far from the Davis-Besse facility, and DOJ's decision to open its files to Mr. Siemaszko in the criminal case.²⁶

Because four of the five DOJ affidavits (including the one with the most detailed factual justifications) are still under seal, we are foreclosed from publishing here a detailed analysis of the NRC Staff's and DOJ's reasons why they believe going forward with our enforcement proceeding might compromise the criminal case. Suffice it to say that, although the dissenting judge's views are not without force, DOJ's affidavits are, in our judgment, adequate to sustain the Board's conclusion that going forward with our enforcement proceeding, with its attendant discovery opportunities, has the potential to jeopardize the ongoing criminal prosecution.²⁷ Based on the DOJ affidavits, we disagree with Mr. Siemaszko's chief point on appeal — namely, that the criminal prosecution and our enforcement proceeding

²³The NRC Staff submitted five affidavits from DOJ's Thomas T. Ballantine, Esq., dated May 17, 2005, Aug. 18, 2005, Sept. 8, 2005, Dec. 6, 2005, and Feb. 1, 2006. Only the last of these is publicly available.

²⁴March 2 Order at 2-3.

²⁵In that proceeding, both the Commission and the Board were concerned that any information made available to the licensee in the enforcement proceeding might undermine a parallel NRC investigation and its potential referral to the Department of Justice for possible criminal prosecution, as well as a concurrent state criminal investigation. See *Oncology*, CLI-93-17, 38 NRC at 48, 53-57; LBP-93-10, 37 NRC 455, 460-64 (1993); LBP-93-6, 37 NRC 207, 214 (1993).

²⁶March 2 Order at 6-7 (McDade, J., dissenting). On appeal, Mr. Siemaszko relies on these same arguments. He also argues that our enforcement case and the criminal prosecution have different "foundations" and "do not substantially overlap," thus rendering it nonprejudicial to proceed with both simultaneously. See Appeal at 4, 6.

²⁷See, e.g., *Campbell v. Eastland*, 307 F.2d 478, 487 (5th Cir. 1962), cert. denied, 375 U.S. 95 (1963) ("A litigant should not be allowed to make use of the liberal discovery procedures applicable to a civil suit as a dodge to avoid the restrictions on criminal discovery and thereby obtain documents he would not otherwise be entitled to for use in his criminal suit").

“do not substantially overlap.”²⁸ The DOJ affidavits demonstrate that the NRC civil enforcement and the DOJ criminal cases are sufficiently intertwined to raise a realistic prospect of prejudice to the criminal prosecution if civil discovery and a civil hearing proceed prematurely. When issuing the Federal Rules of Criminal Procedure, the Supreme Court (with implicit congressional approval²⁹) prescribed the disclosures necessary for a fair balance between criminal defendants’ and prosecutors’ interests. We therefore decline to restart our proceeding and, in effect, authorize discovery not contemplated by federal criminal rules.

Our (and the Board’s) decision to pay heed to DOJ’s concern about possible prejudice to its criminal prosecution in this case is driven to a considerable extent by our long-established policy — memorialized in a formal Memorandum of Understanding — of deferring to DOJ when it seeks a delay in our enforcement proceedings pending the conclusion of DOJ’s own criminal investigations or proceedings.³⁰ We do not lightly second-guess DOJ’s views on whether, and how, premature disclosures might affect its criminal prosecutions.

C. Prejudice to the Recipient of the Enforcement Order

As the Board indicated, the next factor — prejudice to Mr. Siemaszko — “includes two components”: prejudice to his ability to litigate the enforcement proceeding and prejudice to his employment interests.³¹ Mr. Siemaszko argues that a victory in the NRC enforcement adjudication would enhance his chances of victory in criminal court.³² As the Board observed, however, the *opposite* of Mr. Siemaszko’s argument might well be true: “If anything, Mr. Siemaszko would be better prepared to defend this administrative action after the completion of the criminal trial.”³³ Most importantly, Mr. Siemaszko’s appeal makes no claim of prejudice based on unavailable witnesses, stale evidence, or fading memories. But, in any case, the Board’s March 2 Order allows Mr. Siemaszko to seek reconsideration upon “a showing of materially changed circumstances.”³⁴

As for prejudice to Mr. Siemaszko’s employment interests, his indictment reduces that concern (as the dissenting judge below commented) to “little more than background noise.”³⁵ Mr. Siemaszko is, as stated in his appeal, effectively

²⁸ Appeal at 6.

²⁹ See 28 U.S.C. §§ 2072-2074.

³⁰ Memorandum of Understanding, 53 Fed. Reg. at 50,319.

³¹ See March 2 Order at 3.

³² Appeal at 8.

³³ March 2 Order at 3.

³⁴ *Id.* at 2.

³⁵ *Id.* at 7 (McDade, J., dissenting).

unemployable in the nuclear industry at the present time.³⁶ He no longer works either for FENOCO at Davis-Besse, or elsewhere in the nuclear industry. His departure from Davis-Besse in September 2002³⁷ demonstrates that any “risk” to his “continued employment” there is unrelated to the subsequently issued 2005 Enforcement Order.³⁸

In sum, we find that the absence of prejudice (the third factor) weighs in favor of granting the abeyance.

D. Risk of Erroneous Deprivation of Rights

The NRC’s Enforcement Order suspending Mr. Siemaszko from employment in the nuclear industry for 5 years — whether it is ultimately sustained or not — currently has no present effect on Mr. Siemaszko. By its own terms, the Enforcement Order cannot take effect until *after* a hearing. Moreover, as Mr. Siemaszko himself acknowledges, he cannot realistically expect to find employment in the nuclear industry so long as his indictment is outstanding.³⁹ In short, as the Board stated, “as a matter of law, Mr. Siemaszko has not yet been deprived of anything, much less deprived of anything erroneously,” by the NRC.⁴⁰ Therefore, we find that such lack of risk of deprivation weighs in favor of granting the abeyance.

E. Assertion of the Right to a Hearing

The Board, the NRC Staff and Mr. Siemaszko all agree that he asserted his right to a hearing and that he is entitled to one.⁴¹ We also agree. This factor weighs against holding this proceeding in abeyance.

F. Balancing the Five Factors

As we stated in *Oncology*, when determining whether good cause exists for holding a proceeding in abeyance, the decisionmaker “must consider both the public interest as well as the interests of the person subject to the immediately

³⁶ Appeal at 8.

³⁷ NRC Staff Motion To Extend the Stay of the Proceeding, dated Dec. 6, 2005, at 5.

³⁸ See Sept. 29 Order at 6. And if, *arguendo*, Mr. Siemaszko still has a right to “continuing employment” at Davis-Besse or within the nuclear industry of which he could be deprived, then the Enforcement Order could not deprive him of that employment until the end of this proceeding (it is not effective until then) — at which point the abeyance would have terminated.

³⁹ Appeal at 8.

⁴⁰ March 2 Order at 4.

⁴¹ See March 2 Order at 3; Appeal at 8; Answer at 10.

effective order,’’ and ‘‘[t]he determination of whether a delay is reasonable depends on the facts of a particular case and requires a balancing of the[se] competing interests.’’⁴²

We find that the indeterminate length of the delay (the first *Oncology* factor) weighs against granting an abeyance, due to the delay’s potentially adverse effect on testimony. The amount of weight we give this factor is diminished, however, by Mr. Siemaszko’s failure to identify specific concerns — for example, particular witnesses whose availability or memory would be adversely affected by the delay.

Likewise, Mr. Siemaszko’s assertion of his hearing rights (the fifth factor) weighs against granting the abeyance. But the fifth factor is, by its nature, merely procedural,⁴³ and consequently is of little importance when balancing real-life equities.

The remaining three factors weigh in favor of granting the abeyance: the likely absence of prejudice to Mr. Siemaszko from delay (the third factor), the certain absence of any risk that he would be erroneously deprived of his rights (the fourth factor) and, most important, the showing of potential harm to DOJ’s criminal prosecution (the second factor). We conclude that the potential harm to Mr. Siemaszko from holding this enforcement proceeding in abeyance is less than the potential harm to the DOJ (and therefore the public) from going forward. We therefore uphold the Board’s grant of the NRC Staff’s request to hold this proceeding in abeyance.

IV. CONCLUSION

For the foregoing reasons, and for the reasons given by the Board, the Board’s March 2 Order is *affirmed*.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 3d day of May 2006.

⁴² CLI-93-17, 38 NRC at 49-50 (footnote omitted).

⁴³ See Sept. 29 Order at 5.

Concurring Opinion by Commissioner Gregory B. Jaczko:

I offer a concurring opinion on this Order for a couple of reasons. Ultimately, I appreciate the legal and policy reasons for deferring to the Department of Justice when the agency's administrative actions could impact a criminal proceeding, and it is primarily because of the legitimate need for this deferral that I support the overall conclusion reached by my fellow Commissioners in this matter that the NRC's proceeding should be placed in abeyance pending the outcome of the criminal proceeding.

My disagreement with the Order stems from what appears to be an inconsistent treatment of the fact that the Staff's Order in this case was not made immediately effective. On one hand, the Board states that prior to the indictment, the NRC Staff's Order, even though not immediately effective, rendered Mr. Siemaszko "effectively unemployable," but on the other hand, the Commission argues that because the Order was not immediately effective, Mr. Siemaszko has not been legally deprived of anything. In fact, both statements appear to be accurate. But regardless of whether Mr. Siemaszko has been legally deprived of anything, an Order which alleges activities that would render Mr. Siemaszko unemployable in the nuclear industry, even if not imposed until some potential future date, has practical, if not legal implications, that I believe merit greater weight than what the Commission's Order currently provides. In the end, however, I believe the need to limit harm to DOJ's criminal proceeding carries the greatest weight. Thus, although I believe the five *Oncology* factors should be addressed with a different tone, on balance, I believe the end result of abeyance is the correct one.

That said, I am not comfortable simply ignoring the real implications suffered upon Mr. Siemaszko by virtue of this Order. Instead, the Commission should recognize the need to balance the concerns regarding potential damage to a criminal proceeding with the reality that an NRC Enforcement Order, even if not immediately effective, has meaning in the nuclear world. Therefore, I believe that in the limited instances such as this where the record establishes that moving forward with the NRC's administrative proceeding could potentially damage a criminal proceeding because of the overlapping nature of the issues involved, and the Staff's Order is not made immediately effective, any employment ban, if one is ultimately imposed upon Mr. Siemaszko, should be reduced by the amount of time the proceeding was placed in abeyance.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 30-36974-ML
(Material License Application)

PA'INA HAWAII, LLC

May 15, 2006

RULES OF PRACTICE: INTERLOCUTORY APPEALS

The Commission's procedural rules allow an applicant (here Pa'ina) the right to file an interlocutory appeal of board orders admitting contentions, but only if the appeal challenges the admissibility of *all* admitted contentions. 10 C.F.R. § 2.311(c). *See also Exelon Generation Co., LLC* (Early Site Permit for the Clinton ESP Site), CLI-04-31, 60 NRC 461, 468 (2004). This procedural requirement is well established in Commission jurisprudence and in fact long precedes the promulgation of our current Rule 2.311(c), *supra*. *See* 10 C.F.R. § 2.714a(c) (2004) (rescinded); *Northern States Power Co.* (Tyrone Energy Park, Unit 1), ALAB-492, 8 NRC 251, 252 (1978) (challenges to the admissibility of less than all admitted contentions must "abide the end of the case").

MEMORANDUM AND ORDER

This adjudicatory proceeding stems from Pa'ina Hawaii, LLC's ("Pa'ina") application for a materials license to construct and operate an industrial irradiator at the Honolulu International Airport. On October 3, 2005, Concerned Citizens of Hawaii ("Petitioner") requested intervention and a hearing to challenge Pa'ina's

application. On January 24 and March 24, 2006, the Licensing Board issued two orders which, collectively, admitted five of Petitioner's contentions,¹ found that Petitioner had standing, and granted its requests for intervention and a hearing.²

The Commission's procedural rules allow an applicant (here Pa'ina) the right to file an interlocutory appeal of board orders admitting contentions, but only if the appeal challenges the admissibility of *all* admitted contentions.³ Pa'ina's instant appeal challenges the admission of *only three* contentions.⁴ Its appeal is thus facially deficient and we dismiss it on that ground. Of course, Pa'ina may, if it wishes, renew its challenge to the admission of the three contentions later in this proceeding, once the Board has issued its Initial Decision.

IT IS SO ORDERED.⁵

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 15th day of May 2006.

¹ Safety Contentions 4, 6, and 7; Environmental Contention 1; and part of Environmental Contention 2.

² LBP-06-4, 63 NRC 99 (2006) (concerning environmental contentions and standing); LBP-06-12, 63 NRC 403 (2006) (concerning safety contentions).

³ 10 C.F.R. § 2.311(c). *See also Exelon Generation Co., LLC* (Early Site Permit for the Clinton ESP Site), CLI-04-31, 60 NRC 461, 468 (2004). This procedural requirement is well established in Commission jurisprudence and in fact long precedes the promulgation of our current Rule 2.311(c), *supra*. *See* 10 C.F.R. § 2.714a(c) (2004) (rescinded); *Northern States Power Co.* (Tyrone Energy Park, Unit 1), ALAB-492, 8 NRC 251, 252 (1978) (challenges to the admissibility of less than all admitted contentions must "abide the end of the case").

⁴ Safety Contention 7 and Environmental Contentions 1 and 2.

⁵ The Commission has recently received from Pa'ina a motion to consolidate the instant appeal with a second appeal that Pa'ina filed May 8, 2006. The issuance of today's order renders Pa'ina's motion moot. The Commission will address Pa'ina's second appeal in due course.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 40-8968-ML

HYDRO RESOURCES, INC.
(P.O. Box 777, Crownpoint,
New Mexico 87313)

May 16, 2006

URANIUM MINING AND MILLING

The NRC does not regulate conventional uranium mining. The Atomic Energy Act requires an NRC license to transfer or receive in interstate commerce any source material (such as uranium ore) only “after removal from its place of deposit in nature.” Atomic Energy Act of 1954, as amended, § 62, 42 U.S.C. § 2092. This provision precludes the NRC from exercising jurisdiction over conventional uranium mining. *See, e.g., Rochester Gas and Electric Corp.* (Sterling Power Project Nuclear Unit No. 1), ALAB-507, 8 NRC 551, 554 n.7 (1978) (“the Commission’s authority over uranium ore and other ‘source material’ attaches only ‘after removal from its place of deposit in nature,’ and not when the ore is mined,” citing 42 U.S.C. § 2092 (emphasis removed)).

TOTAL EFFECTIVE DOSE EQUIVALENTS

TEDE includes radiation from “licensed operations” and excludes preexisting “background radiation.” 10 C.F.R. § 20.1301(a)(1). Thus, the plain language of the regulation excludes emissions not directly tied to licensed activity.

MATERIALS LICENSES

The bare ownership of land containing radioactive material is not part of the licensee's licensed "operation." An NRC license is not required to "possess" source material in the form of unprocessed and unrefined ore so long as the ore is not processed or refined. *See* 10 C.F.R § 40.13(b).

BACKGROUND RADIATION

Mine spoil is a subset of "naturally occurring radioactive material" (NORM) commonly known as "technologically enhanced naturally occurring radioactive material" or TENORM. Emissions from NORM are background radiation.

BACKGROUND RADIATION

At the time the NRC drafted the regulation defining "background radiation," the term NORM was understood to include TENORM. This is evident from the definition's history.

BACKGROUND RADIATION

Radiation from unregulated "source material" is considered background radiation. All uranium and thorium is source material, but the NRC does not regulate source material in unprocessed ores and source material with insignificant concentrations of radionuclides.

REGULATIONS, INTERPRETATION

"[T]echnical terms of art should be interpreted by reference to the trade or industry to which they apply." *Louisiana Public Service Commission v. Federal Communications Commission*, 476 U.S. 355, 372 (1986), citing *Corning Glass Works v. Brennan*, 417 U.S. 188 (1974).

BACKGROUND RADIATION

The NRC does not need a formal rulemaking to include technologically enhanced naturally occurring radioactive material (TENORM) in the category of naturally occurring radioactive material (NORM). The inclusion of TENORM as a subset of NORM was implicit at the time the regulatory definition of background was promulgated. There is no need for the NRC to draw fine distinctions among various classes of materials that it does not even regulate.

MEMORANDUM AND ORDER

Intervenors Eastern Navajo Diné Against Uranium Mining and Southwest Research and Information Center (together, “Intervenors”) have petitioned for review of LBP-06-1, the Presiding Officer’s January 6, 2006, Partial Initial Decision (Phase II Radiological Air Emission Challenges to In Situ Leach Uranium Mining License).¹ The Presiding Officer found that radiological air emissions from Hydro Resources, Inc.’s (HRI’s) proposed *in situ* leach mining facility in Church Rock, New Mexico, would not exceed the NRC dose limits.² Intervenors claim that the Presiding Officer erroneously discounted, as “background radiation,” existing radiation from mining spoil left at the site by previous owners.

We granted review so that we could resolve the “background radiation” issue definitively.³ Today we decide, as the Presiding Officer held, that radioactive residue from previous mining activity amounts to “background radiation” and does not count toward the 0.1-rem dose limit applicable to new *in situ* facility licenses.⁴

I. BACKGROUND

A. Regulation of Uranium Mining

The NRC does not regulate conventional uranium mining. The Atomic Energy Act requires an NRC license to transfer or receive in interstate commerce any source material (such as uranium ore) only “after removal from its place of deposit in nature.”⁵ This agency has traditionally viewed this provision as precluding jurisdiction over uranium mining as such.⁶ In keeping with this interpretation, the NRC begins its oversight at the mill, rather than at the mine. Part 40 of our regulations governs *processing* of uranium ore.⁷ NRC regulates *in situ* leach

¹ LBP-06-1, 63 NRC 41 (2006).

² *Id.* at 52-71.

³ CLI-06-7, 63 NRC 165 (2006).

⁴ Under 10 C.F.R. § 20.1301(a)(1), each licensee must conduct operations so that a member of the public does not receive a dose exceeding 0.1 rem in a year “exclusive of the dose contributions from background radiation.”

⁵ Atomic Energy Act of 1954, as amended (AEA), § 62, 42 U.S.C. § 2092.

⁶ *See, e.g., Rochester Gas and Electric Corp.* (Sterling Power Project Nuclear Unit No. 1), ALAB-507, 8 NRC 551, 554 n.7 (1978) (“[T]he Commission’s authority over uranium ore and other ‘source material’ attaches only ‘after removal from its place of deposit in nature,’ and not when the ore is mined,” citing 42 U.S.C. § 2092 (emphasis removed)).

⁷ In 10 C.F.R. § 40.4, our regulations define “unrefined and unprocessed ore” as “ore in its natural form prior to any processing *such as* grinding, roasting or beneficiating, or refining” (emphasis added).

mining, in contrast to conventional mining, because *in situ* extraction involves altering the chemical form of the uranium and thus constitutes the first step of processing.

Conventional mining is controlled by other regulatory authorities. The State of New Mexico, for example, regulates conventional uranium mining within the state.⁸ New Mexico's laws address "the process of obtaining useful minerals from the earth," with the exception of "the extraction, processing, or disposal of commodities, byproduct materials or wastes or other activities regulated by the [NRC]."⁹ Pursuant to this authority, New Mexico has enforced cleanup orders against United Nuclear Corporation (UNC) — HRI's predecessor-in-interest at Church Rock — with respect to its uranium mining activities within the state.¹⁰

The United States Environmental Protection Agency (EPA) exercises authority, under various statutes, to protect the public from hazards associated with so-called "technologically enhanced naturally occurring radioactive material" (TENORM), including TENORM produced in uranium mining.¹¹

B. History of this Proceeding¹²

In 1994, HRI applied for a license to conduct *in situ* leach uranium mining at four sites in McKinley County, New Mexico. In January 1998, after completing its technical review of the application, the NRC Staff granted HRI a materials license under 10 C.F.R. Part 40 to mine all four sites. In May 1998, the then-Presiding Officer granted the Intervenors' requests for a hearing to challenge the license.

The adjudication was split into two phases, with the first phase covering the sites where HRI intended to start operations. The order now under review comes from the second phase of the adjudication and deals with a site known as Church Rock Section 17. Although HRI has held its license for 8 years, it has not yet started mining at any of the four sites, "due, in part, to profitability concerns relating to the fluctuating price of uranium."¹³

⁸ See New Mexico Mining Act, N.M. Stat. § 69-36-1 *et seq.* (1978).

⁹ See N.M. Stat. § 69-36-3.H. In *New Mexico Mining Commission v. United Nuclear Corp.*, 57 P.3d 862 (N.M. Ct. App. 2002), the New Mexico Court of Appeals rejected the argument by a mining company that this statute gave New Mexico no jurisdiction over its uranium mining because of the clause exempting NRC-regulated activities. The court noted that the NRC has never asserted jurisdiction over conventional uranium mining. *Id.* at 864.

¹⁰ See *id.*

¹¹ See EPA's Web site at <http://www.epa.gov/radiation/tenorm/index.html>; see also http://www.epa.gov/radiation/tenorm/uranium_waste.htm.

¹² The Presiding Officer described the long history of this proceeding, as well as the leach-mining process, in his January 6, 2006, Order. As such, we do not provide a lengthy recapitulation in today's decision.

¹³ LBP-06-1, 63 NRC at 46.

The Church Rock Section 17 site is contaminated with mining spoil left over from underground uranium mining by its previous owner, UNC. UNC conducted underground mining on Section 17 for about 30 years before selling the land to HRI. The contamination is in the form of dust and rocks apparently lost from trucks hauling the ore from the site, or possibly from excavated rock used to build the road.¹⁴ No ore was ever processed on the Section 17 site.¹⁵

Intervenors presented evidence suggesting that spoil left over from conventional mining on Section 17 has raised the level of gamma radiation at the site significantly.¹⁶ They further provided expert testimony showing that radioactive air emissions, particularly near the roads, were elevated as compared to nearby unmined areas having “physical, chemical, radiological and biological characteristics” similar to Section 17.¹⁷ Intervenors claim that, due to this contamination, the Section 17 site emits radiation “above the NRC’s minimum safety levels,”¹⁸ and this is reason enough for the NRC to deny a license for any further mining activity there. Intervenors argue that HRI should be forced to clean up the existing contamination before it is allowed to proceed with additional uranium recovery processes.¹⁹

HRI argues that the dose levels of radiation at Section 17 are high due to “natural mineralization” in the area,²⁰ but acknowledges that the mine spoil has elevated the radiation levels at least to some extent.²¹

The issue we consider today deals exclusively with how to classify the radiation attributable to the existing mine spoil. Radioactive air emissions from HRI’s proposed *in situ* leach mining operations are not at issue. The Presiding Officer found that HRI’s controls would ensure its operations would not emit airborne radiation in excess of the 0.1-rem “total effective dose equivalent” (TEDE) limit

¹⁴ See *id.* at 52 n.7.

¹⁵ *Id.*

¹⁶ See Intervenors Eastern Navajo Diné Against Uranium Mining’s, Southwest Research and Information Center’s Written Presentation in Opposition to Hydro Resources, Inc.’s Application for a Materials License with Respect to: Radiological Air Emissions for Church Rock Section 17 (June 13, 2005), Declaration of Melinda Ronca-Battista, at 8-9, 12-13.

¹⁷ *Id.*

¹⁸ See Intervenors’ Petition for Review of LBP-06-1 (Jan. 26, 2006) at 4.

¹⁹ See Intervenors’ Reply Brief Regarding Church Rock Section 17 Air Emissions (Mar. 20, 2006) at 5.

²⁰ See [HRI’s] Response in Opposition to Intervenors’ Written Presentation to the Presiding Officer Regarding Air Emissions (July 29, 2005) at 22-23.

²¹ See HRI’s Response at 28 (“It is likely that background gamma radiation will be elevated due to the presence of the naturally occurring radioactive materials (i.e., mine waste) noted above”).

set out in Part 20 of our regulations.²² In making this finding, the Presiding Officer analyzed the text and history of key provisions of Part 20 and concluded that preexisting radioactive residue from prior mining should be considered “background radiation” and therefore not counted in the TEDE calculation.²³

Conversely, however, in the first phase of this adjudication, a different Presiding Officer held that radioactive emissions from material left on the mine site, as well as emissions from an underground mine, should be considered part of the TEDE from HRI’s operations.²⁴ In the ruling now at issue, the Presiding Officer considered and rejected the previous Presiding Officer’s reasoning on this issue.²⁵ This disagreement between the two Presiding Officers’ rulings was one reason we took review of this matter.²⁶

II. DISCUSSION

We agree with and affirm the phase II Presiding Officer’s comprehensive decision.²⁷ His ruling is consistent with the NRC’s regulations and with its longstanding interpretation of its role in the uranium fuel cycle. Were the NRC to expand the definition of TEDE to include radioactive air emissions from debris left over from unlicensed conventional mining activities, the agency, in effect, would be entering an area of regulation that it has historically considered beyond the scope of the Atomic Energy Act. This we decline to do.

A. TEDE

The key question that the Presiding Officer had to answer was whether the TEDE from HRI’s operation would exceed our regulatory dose limits. The pertinent regulation ties the TEDE calculation to radiation from “licensed operations”; it expressly excludes preexisting “background radiation”:

²² LBP-06-1, 63 NRC at 69-71. Although Intervenors originally claimed that emissions from the old UNC mine should count toward TEDE, the issue is moot because the Presiding Officer found that there are no such emissions due to the sealing of the mine. *See* LBP-06-1, 63 NRC at 53-55. The Intervenors do not challenge that finding on appeal.

²³ *Id.* at 28-33.

²⁴ *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-99-15, 49 NRC 261, 266-67, *interlocutory petition for review denied*, CLI-99-8, 49 NRC 311 (1999).

²⁵ *See* LBP-06-1, 63 NRC at 59.

²⁶ *See* CLI-06-7, 63 NRC at 166.

²⁷ Hence, for the reasons given by the phase II Presiding Officer, we disagree with the phase I Presiding Officer that emissions from preexisting radioactive materials deposited onsite as part of an operation not licensed by the NRC should be considered part of the TEDE from the licensed operation. *See* LBP-06-1, 63 NRC at 55-59.

Each licensee shall *conduct* operations so that —

. . . The [TEDE] to individual members of the public from the licensed operation does not exceed 0.1 rem . . . in a year, exclusive of the dose contributions from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released under § 35.75, from voluntary participation in medical research programs, and from the licensee’s disposal of radioactive material into sanitary sewerage in accordance with § 20.2003²⁸

Thus, the plain language of the regulation on TEDE emissions excludes emissions not directly linked to licensed activity. Both grammar and logic dictate that the emissions from already existing mining spoil do not constitute emissions from the licensed operation. In HRI’s case, then, only emissions actually stemming from the proposed *in situ* leach mining count in calculating the TEDE.

Intervenors gain no ground with their argument that the calculated TEDE from a “licensed operation” must include *all* radioactive emissions, not just those from “licensed materials.”²⁹ The Presiding Officer’s ruling does not say that the material emitting radiation must be “licensed” to count toward TEDE, only that it must come from the licensed operation. HRI’s bare ownership of land containing radioactive mine spoil is not part of its NRC-licensed “operation.” HRI did not bring the material to the surface. It is not required to have an NRC license to possess source material in the form of unprocessed ore (so long as it does not process that ore).³⁰ Nothing in the record suggests that HRI plans to “process” the dust and rock that cover the surface of Section 17.

The Presiding Officer noted that simply interpreting the phrase “from the licensed operation” as limiting the scope of TEDE arguably renders unnecessary other provisions in the TEDE rule expressly excluding doses resulting from medical administrations and disposal of radioactive material in sanitary sewerage.³¹ Because of this concern, the Presiding Officer took his analysis a step farther, and inquired whether mine spoil emissions fit into the category of “background radiation” — which our rules explicitly exclude from the TEDE calculation.³² Finding that mine spoil is a subset of “naturally occurring radioactive material” (NORM) commonly known as “technologically enhanced naturally occurring

²⁸ 10 C.F.R. § 20.1301(a)(1) (emphasis added).

²⁹ See Intervenors’ Supplemental Brief Regarding Church Rock Section 17 Air Emissions (Mar. 13, 2006) at 5 n.8.

³⁰ See 10 C.F.R § 40.13(b) (persons do not need a license to “possess” source material in the form of unprocessed and unrefined ore so long as they do not process or refine such ore).

³¹ See LBP-06-1, 63 NRC at 66 n.22.

³² *Id.*

radioactive material” or TENORM, he concluded that these emissions fit the definition of background radiation,³³ a matter to which we now turn.

B. Background Radiation

In 1991, NRC published revisions to the standards in 10 C.F.R. Part 20 for protection against radiation.³⁴ In its definition of “background radiation,” the rule expanded the category of what was once called “natural background” radiation to include various anthropogenic sources as well as NORM, and to expressly exclude NRC-regulated sources:

[R]adiation from cosmic sources; naturally occurring radioactive material, including radon (except as a decay product of source or special nuclear material); and global fallout as it exists in the environment from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under the control of the licensee. “*Background radiation*” does not include radiation from source, byproduct, or special nuclear materials regulated by the Commission.³⁵

“Naturally occurring radioactive material” — NORM — is not defined elsewhere in the regulations.

The Presiding Officer addressed the last sentence of the “background radiation” definition first, concluding that radiation from “source material” can be background radiation where, as here, the source material from which it emanates is not “source material . . . regulated by the Commission.”³⁶ While the Atomic Energy Act provides that uranium and thorium are source material, the Presiding Officer explained, the NRC does not regulate *all* source material.³⁷ Unprocessed ores and source material with insignificant concentrations of radionuclides are not regulated by the Commission.³⁸ Because mining spoil is unprocessed ore and

³³ *Id.* at 65-69.

³⁴ Final Rule: “Standards for Protection Against Radiation,” 56 Fed. Reg. 23,360, 23,365 (May 21, 1991).

³⁵ 10 C.F.R. § 20.1003.

³⁶ *See* LBP-06-1, 63 NRC at 55-60.

³⁷ *See id.* The Presiding Officer observed “If, as the Intervenors assert, radiation from *all* source material (whether or not regulated by the Commission) is excluded from background radiation, then radiation from, for example, surface soils and outcrops containing naturally occurring uranium and thorium would be excluded from background radiation.” *Id.* at 57-58 (emphasis in original).

³⁸ *See* AEA § 3z, 42 U.S.C. § 2014z (“Source material” includes ores containing uranium or thorium in concentrations that the Commission determines to be significant); *see also* 10 C.F.R. § 20.1003

(Continued)

thus *not* “regulated by the Commission,” the Presiding Officer determined that the last sentence of the definition did not preclude his finding that the radiation from mining spoil constituted “background radiation.”³⁹ The Presiding Officer went on to conclude that mining spoil should be considered NORM, and thus background radiation within the first sentence of our definition. He found that the mining spoil falls within the scope of TENORM.⁴⁰

The Presiding Officer’s understanding of our “background radiation” definition is correct. At the time the NRC drafted the regulation defining “background radiation,” the term NORM was understood to include TENORM. This is evident from the definition’s history. It shows that the NRC considered, and explicitly rejected, a suggestion by the Advisory Committee on Reactor Safeguards (ACRS) that the proposed rule be revised to “emphasize” that NORM did *not* include TENORM.⁴¹ As the ACRS suggestion implicitly recognized, *excluding* TENORM would have required express language, if that was what the NRC had intended with this regulation. But the agency rejected the ACRS suggestion, for the reason that most TENORM is outside NRC’s regulatory jurisdiction.⁴² As the Presiding Officer recounts, over the years the NRC and other regulatory authorities have repeatedly considered “TENORM” as equivalent to “NORM.”⁴³

Intervenors argue that mine spoil excavated from underground cannot be NORM, and hence cannot emit “background radiation,” because the ordinary meaning of “naturally occurring” is “undisturbed in nature.”⁴⁴ But, as the Presiding Officer suggested,⁴⁵ it is a well-established rule of construction that “technical terms of art should be interpreted by reference to the trade or industry

(setting the threshold concentration at 0.05%). The Presiding Officer also found that the record showed that the mining spoil did not exceed the threshold concentration of uranium to make it licensable material. LBP-06-1, 63 NRC at 62.

³⁹ See LBP-06-1, 63 NRC at 61-63. The Presiding Officer explained that the mining spoil is “not regulated by the Commission” both because Part 40 regulations exempt from regulations “unimportant quantities” of source material and because the spoil is “unrefined and unprocessed” ore. See 10 C.F.R. § 40.13(b).

⁴⁰ LBP-06-1, 63 NRC at 65-69.

⁴¹ See SECY-88-315, Memorandum from Victor Stello, Jr., NRC Executive Director for Operations, to the Commissioners re: Revision of 10 C.F.R. Part 20, “Standards for Protection Against Radiation,” Enclosure 10, at 3-4 (Nov. 4, 1988).

⁴² *Id.*

⁴³ See LBP-06-1, 63 NRC at 67.

⁴⁴ See Petition for Review at 4; Intervenors’ Supplemental Brief at 3-4.

⁴⁵ See LBP-06-1, 63 NRC at 66-68 & n.24.

to which they apply.’⁴⁶ The Presiding Officer pointed to *Smith v. United States*⁴⁷ to illustrate that a layman’s reading of a regulation, uninformed by context, is not decisive. In *Smith*, the U.S. Supreme Court ruled that trading a firearm for drugs could be considered the “use” of a firearm during a drug trafficking crime, as that term was used in the statute, even though to the “average person on the street” the words “use of a firearm” would evoke use of a firearm *as a weapon*. Similarly, although the term “naturally occurring” certainly includes, as Intervenor stress, material “undisturbed in nature,” it also can be understood to include naturally occurring radioactive material that has been moved, but neither artificially produced nor processed for its radioactive content. This is particularly true where, as here, that is the relevant regulatory agency’s (the NRC’s) understanding as well as that of the regulated industry.

Intervenor are simply mistaken in their assertion that TENORM only designates materials, such as plasterboard and fertilizer, that have been manufactured for a use unrelated to their incidental radioactive properties. The EPA, which regulates TENORM, describes TENORM as including waste streams from various industries, such as sewage treatment waste and waste from drinking water treatment.⁴⁸ Consistent with this, the NRC has recognized that TENORM includes waste materials:

TENORM is found in various concentrations in a variety of forms (physical and chemical matrices) such as scrap metal, sludges, fluids, scales in storage tanks and piping, chemical residues, processing fluids, surface and groundwaters, and mine tailings.⁴⁹

Finally, we reject Intervenor’s claim that the Presiding Officer improperly broadened our “background radiation” regulation in a way that should only be

⁴⁶ *Louisiana Public Service Commission v. Federal Communications Commission*, 476 U.S. 355, 372 (1986), citing *Corning Glass Works v. Brennan*, 417 U.S. 188 (1974). In *Corning Glass*, the Court deferred to the U.S. Department of Labor’s interpretation that the term “working conditions” meant physical surroundings and not whether the work shift was during night or day: “While a layman might well assume that time of day worked reflects one aspect of a job’s ‘working conditions,’ the term has a different and much more specific meaning in the language of industrial relations.” 417 U.S. at 202. See also *Utah v. Evans*, 536 U.S. 452, 468 (2002) (Federal statute prohibiting the Census Bureau from using “the statistical method known as ‘sampling,’ ” did not prohibit the use of another technique known as “hot-deck imputation” because each term had specific, and different, meaning as used by statisticians).

⁴⁷ 508 U.S. 223 (1993).

⁴⁸ For more information, see the EPA’s Web site, *supra* note 11.

⁴⁹ SECY-01-0057, Partial Response to SRM COMEXM-00-0002 — “Expansion of NRC Statutory Authority Over Medical Use of Naturally Occurring and Accelerator-Produced Radioactive Material (NARM),” Attachment 2, P. Egidi and C. Hull, “NORM and TENORM Producers, Users, and Proposed Regulations” (1999), at 1.

done in a formal rulemaking. As shown above, the understanding at the time the regulation issued implicitly included TENORM as a type of NORM. The fact that NRC regulations do not define “TENORM,” as such, is not surprising. There is no need for the NRC to draw fine distinctions among various classes of materials that it does not even regulate; the spoil leftover from mining falls into that category.

The Presiding Officer, in short, had ample basis to conclude that mining spoil near the site of HRI’s leach mining operation does not contribute to the TEDE for the “licensed operation” and, in fact, should be considered background radiation.

C. Policy Considerations

We reject Intervenors’ overarching argument that we should invalidate HRI’s license for policy reasons, lest we shirk our duty to protect the public from unsafe levels of radiation. Intervenors argue that granting HRI a license “rewards HRI for failing to remediate its site,” and complain that a land transfer from UNC to HRI should not transform contamination into “background radiation.”⁵⁰

According to the Presiding Officer’s findings (which Intervenors do not challenge), HRI’s *in situ* leach mining operations will have a negligible effect on radioactive air emissions around the site. But under Intervenors’ theory, the NRC should revoke the license for HRI’s benign activity because of preexisting contamination that denying the license would not alleviate. Nowhere in Intervenors’ petition for review or supplemental brief do they cite authority for NRC to order cleanup of the preexisting radiation at the Section 17 site. As such, we decline to revoke HRI’s license because of the existence of residue from prior mining activity that the NRC did not, and does not, regulate.

The Presiding Officer’s decision (and our decision affirming it) does not extinguish any right or cause of action Intervenors may have under state (or other Federal) law to force a cleanup. It merely finds that, *for purposes of calculating the TEDE* for an NRC-licensed activity, radiation from preexisting, conventional mining spoil is not included. Policy considerations do not support revoking HRI’s license.

III. CONCLUSION

For the foregoing reasons, and for the reasons given by the Presiding Officer, the Presiding Officer’s partial initial decision on phase II radiological air emissions is hereby *affirmed*.

⁵⁰ See Intervenors’ Supplemental Brief Regarding Church Rock Section 17 Air Emissions (Mar. 13, 2006) at 9-10; *see also* Petition for Review at 9.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 16th day of May 2006.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Michael C. Farrar, Chairman
E. Roy Hawkens
Nicholas G. Trikouros

In the Matter of

Docket No. IA-05-052
(ASLBP No. 06-845-01-EA)

DAVID GEISEN

May 19, 2006

In this proceeding concerning a Nuclear Regulatory Commission (NRC) Staff immediately effective enforcement order prohibiting the involvement of David Geisen in NRC-licensed activities, the Licensing Board denies a motion by the NRC Staff to hold the proceeding in abeyance indefinitely, pending the parallel criminal prosecution against Mr. Geisen in federal district court.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The Government's motion seeking an indefinite enforcement hearing delay must be denied where the Government's theory for seeking the delay of the hearing fails to show that, in actual practice, the prompt conduct of the NRC hearing process would interfere with the Government's prosecution of the criminal charges against the subject of the enforcement order and where the subject of the order has shown that delaying his opportunity to challenge the immediately effective enforcement order would continue the harm of depriving him of his chosen livelihood and its anticipated income.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

In determining whether there is good cause to delay a proceeding challenging an immediately effective license suspension order, the NRC evaluates the facts of each particular case in the process of weighing the following five factors: (1) the length of the delay, (2) the reason for the delay, (3) the risk that the ruling erroneously deprived the subject of its license (or other right in issue), (4) the subject's assertion of his or her right to a hearing, and (5) the prejudice to the subject.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The NRC has stressed that the pendency of a criminal trial does not automatically toll the time for instituting a civil proceeding because it is necessary to look at the facts of a particular proceeding. In doing so, a Licensing Board must separate remedial theories that find particularized support in the circumstances presented from those that do not.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

In considering the reason for the requested delay of a civil proceeding, it is important to consider which party initiated the civil action and which party is seeking relief from its going forward.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The party requesting a delay must provide detailed and specific reasons demonstrating some type of cognizable harm would result absent that relief. Absent a determination that some type of specific harm would result from allowing the proceeding or discovery to continue, delays are routinely denied.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The critical issues to be determined when deciding an abeyance motion involve "relative harm," that is focusing on (1) whether, and if so to what extent, the moving party (here, the Government) has shown that not granting a delay of the length being sought will harm it, versus (2) whether, and if so to what extent, granting that same delay will harm the movant's opponent (here, the subject of the enforcement order).

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

Given that the critical issues to be determined when deciding an abeyance motion involve determining where the “relative harm” lies, the other factors (i.e., “assertion of hearing right,” and “risk of erroneous deprivation”) would typically be given less weight unless, for example, the assertion was dilatory or perfunctory, or — based on some unusual early but abbreviated insight into the merits — the risk can be shown to be either quite high or vanishingly low.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

Although the passage of time might threaten to cut away at the quality of the evidence, as witnesses pass on, become forgetful, or otherwise become unable to present testimony as lucid as they might have earlier, where the party opposing a motion to stay an enforcement proceeding does not express undue concern that delay will diminish the quality of the evidence, that possibility may be put aside as nonspecific and not credited as prejudicing the subject of the order, notwithstanding the concern that — to protect the probative value of the underlying fact-based evidence — delaying the full discovery and presentation of that evidence in an already long-drawn-out proceeding should be avoided where possible.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

There is theoretical validity to the Government’s arguments that the civil discovery process could lead to the tainting of evidence in a criminal case and that the civil discovery process could lead to the defendant’s obtaining access to evidence that would provide him an unfair advantage over the Government. But no matter how serious the concerns underlying those theories, they must be shown by the moving party to have some practical applicability to the particular circumstances of the case in order for it to obtain the delay sought.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

Allowing certain civil cases to go forward might create the potential to harm the search for truth in a related criminal case by tainting the evidence otherwise expected to be available therein. For example, allowing prospective Government witnesses to be deposed (or even to be identified) by those in position to intimidate them explicitly or implicitly — through threats of physical violence, of workplace demotion or harassment, or of some other form of physical, financial, or emotional retaliation — might lead to the witness tailoring or limiting

his testimony, professing an inability to remember the incidents in question, or disappearing from view entirely.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The natural predeposition unease — i.e., the transitory discomfort, just from having to testify at all, that is always inherent in the discovery or trial process — has nothing to do with the kind of particularized, forceful intimidation involving threats of extra-deposition retaliation that the law is concerned with, threats that could be communicated, subtly or otherwise, as part of the run-up to, or conduct of, the deposition, with the specific intent of causing the subsequent tainting, alteration, or disappearance of substantive evidence.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

Civil discovery can lead to perjury in the criminal case, via enabling a defendant to tailor his testimony, and that of his confederates, to jibe with, or to work around, what he learns about the state of the Government's knowledge. But in this case, the Government has already completed years of investigatory work, including numerous interviews of the defendant and of his coworkers. Given the number of their statements already on the record, then regardless of what they might now learn about the Government's case, any opportunity for them — undetected — to adjust their testimony by perjuring themselves is obviously long past.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

Saying the Government needs to demonstrate the potential for the tainting of evidence is not the equivalent of insisting that the Government establish that perjury or intimidation would necessarily take place. Rather, what the Government, as movant, must establish is at least that conditions exist in the proceeding that would allow the defendant, were perjury or intimidation on his mind, to proceed into the civil discovery process with some chance of success in that regard.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The serious concern about evidence tampering stems from the possibility that — after learning in a civil proceeding about the nature of the Government's evidence of his possible crime — the defendant would be able to alter evidence in his possession or control to provide a defense to the charges, or to undercut the evidence against him. This concern would be particularly troubling, for example,

where a defendant was, and still is, the Chief Executive Officer, the Chief Financial Officer, or the Chief Information Officer (or some other functionary with access to, or control over, company files), at an organization associated with the alleged criminal activity.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The tampering theory is entirely inapplicable where the defendant has not been employed at the relevant organization for several years, and the Government gives no indication as to how the defendant might employ knowledge gained through civil discovery to alter paper documents or electronic files that he has no control over whatsoever and which the Government has long-since obtained through its several-year-long investigation.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

When a defendant is scheduled to receive more discovery, and earlier in the trial, than the Federal Rules of Criminal Procedure contemplate by virtue of the U.S. Attorney's voluntary adoption of an "open file" discovery process, then the Government's own conduct undercuts any complaint that allowing civil discovery to proceed would alter the usual balance as to just how much discovery a defendant can obtain.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

Where the Government has investigated for at least 3 years the circumstances surrounding an incident that was meticulously documented, in the files of both the NRC Staff and of the highly regulated nuclear plant operating organization under whose aegis the alleged offenses occurred (and which presumably had to make all its records available to the Government) and, as a result, the Government is in possession of some 19,000 documents related to the activities that underlie the civil and criminal charges, and has already interviewed the alleged perpetrators, as well as their co-employee witnesses, several times (and has not advised that on any of those occasions the targets declined to answer any of the inquiries), and the targets of the investigations are no longer employed in the organization within which their alleged misdeeds occurred, and the Government did not even allege that the targets' information base is anything other than paltry compared to the Government's, the information balance is already skewed heavily in favor of the Government. Thus, allowing the target of criminal and civil proceedings brought against him by the Government to obtain — in the course of challenging expeditiously the immediately effective civil enforcement order — information

he would not receive in defending against the criminal indictment, does not alter the information balance to any degree that might properly be called unfair to the Government or that to any degree puts the Government at a disadvantage.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The happenstance that, in defending themselves against the serious civil charges that another Government agency has chosen to file against them, the targets obtain certain ordinary discovery that will also be helpful in the defense of their criminal case, creates no cognizable harm to the Government beyond its desire to maintain a tactical advantage.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

Courts have occasionally granted the Government's request to delay a civil proceeding when that proceeding has been brought, not by the Government in furtherance of the public interest, but by the accused criminal defendant for the express or transparent purpose of creating a discovery opportunity he would not otherwise have.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The Commission's long-established policy of deferring to the Department of Justice (DOJ) when it seeks a delay of a parallel enforcement proceeding, and of not lightly second-guessing DOJ's views on whether, and how, premature disclosures might affect its criminal prosecutions, does not remove the need for DOJ to come forward, in public or if necessary in secret, with views of substance that are tailored to the circumstances of the case at hand.

DUE PROCESS: DEPRIVATION OF LIBERTY OR PROPERTY AS TO EMPLOYMENT

The right to hold specific private employment and to follow a chosen profession free from unreasonable Governmental interference comes within the liberty and property concepts of the Fifth Amendment.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The fact of an indictment and the failure to challenge the immediate effectiveness of the order count in favor of the Government's stay request because they reduce the likelihood of erroneous deprivation. Moreover, the weight to be given

this factor may be increased by the consideration that the Government saw fit to indict the defendant but not certain other coworkers who were also the subject of enforcement orders.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

Under the erroneous deprivation factor, the fact that a defendant turned down a deferred prosecution offer from the DOJ that would have guaranteed him no prison time if he would admit to the acts alleged, demonstrates that the defendant has some belief in his innocence, or at least in his ability to keep the Government from establishing his guilt before a jury, and in his ability in this forum to redeem his career, and thus entitles him to receive some credit for this factor.

ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS

The Government's rote incantation of important principles and serious concerns that have applicability and force in other contexts does not mean they bear on the circumstances presented here. Where the Government's sole argument was the unsupported and nonparticularized assertion that the enforcement proceeding should be delayed to protect DOJ's pending criminal prosecution, the matter is controlled by the Commission's admonition that the Staff's mere assertion that it wishes to protect DOJ's pending criminal prosecution does not, without more, justify holding our parallel administrative proceeding in abeyance. Such a "mere assertion" being essentially all that was provided here to counter the serious harm to the subject, the Government's motion therefore had to be denied.

MEMORANDUM AND ORDER **(Denying Government's Request To Delay Proceeding)**

At the beginning of this year, having completed a several-year-long investigation, the NRC Staff issued an immediately effective Enforcement Order to David Geisen, suspending him from any work in the regulated nuclear industry for 5 years, based on assertedly misleading reports he had filed in late 2001 while an employee of the Davis-Besse Nuclear Power Station in northwestern Ohio. The Staff's Order caused the termination of the work Mr. Geisen was then performing in the industry and the interruption of his chosen career.

Under the Commission's regulations, Mr. Geisen was entitled to seek a hearing before us to test the Order's validity. He did so in timely fashion, and upon this Board's establishment, we granted his uncontested request in late March. Because

the suspension order against him was immediately effective, the Commission's regulations mandate that our hearing be conducted "expeditiously."

Nonetheless, the NRC Staff at the behest of the United States Department of Justice (collectively referred to herein as "the Government") has filed a motion seeking to have us hold in abeyance our hearing process — the vehicle for testing the job suspension order — pending the outcome of a criminal indictment, making similar allegations, filed against Mr. Geisen (and others) in federal district court in Ohio. Mr. Geisen has vigorously opposed any such delay, pointing to the ongoing deprivation of his livelihood and of the ability to pursue his chosen career, as well as other adverse impacts, being occasioned by the Order he seeks to challenge.

Having studied all the briefs and having heard oral argument on April 11, we have concluded that the Government's reasons for seeking indefinite delay of Mr. Geisen's hearing fall far short of the "good cause" standard set by the Commission's regulations and defined by Commission and judicial precedents. There is, rather, essentially "no cause" for the delay being sought, for the Government's theories fail to show that, in actual practice, the prompt conduct of our hearing process would interfere with its prosecution of the criminal charges against Mr. Geisen.

In contrast, Mr. Geisen has shown that delaying his opportunity to challenge the immediately effective Staff Order in the civil enforcement proceeding pending before us would continue the harm of depriving him of his chosen livelihood and its anticipated income. As a consequence of that deprivation, he has been forced to use retirement savings to start a less-remunerative business, which involves travel that takes him away from his wife and high-school-age children. All this damage is, of course, irreparable for as long as it continues.

In these circumstances, the law, the precedents, and the equities mandate the ruling we make today, namely, that the Government's motion seeking an indefinite delay be denied. The result is that both the administrative proceeding before us, and the criminal proceeding in federal district court, will continue apace, moving forward in parallel as such matters routinely do except in circumstances — not shown by the Government to be present here — where there is substantial justification for one or the other proceeding to be halted.

We begin this opinion by providing, in Part I, more detail about the controversy's origins. In Part II, we set out the Commission and judicial precedents that establish the framework for our decision, i.e., the factors we are to consider in determining whether the Government has shown "good cause" to put aside the Commission's regulatory mandate that matters such as this be conducted "expeditiously." From those premises, we proceed in Part III to apply those factors to the circumstances before us, with the result that we find the balance of the factors to be overwhelmingly against granting the requested delay and in favor of moving forward.

I. THE SETTING

On January 4, 2006, the NRC Staff issued an immediately effective Enforcement Order (Order) to David Geisen, prohibiting him — because of allegations arising from certain events (described below) that occurred at Davis-Besse — from engaging in NRC-licensed activities for 5 years from the date of the Order.¹ When the Order was issued, Mr. Geisen was working at Dominion Energy’s Kewaunee Nuclear Power Plant as Supervisor of Nuclear Engineering.² The very next day, as a result of the Order, Dominion placed Mr. Geisen on leave and prohibited him from entering the Kewaunee facility.³

Three weeks later, on January 26, 2006, Dominion notified Mr. Geisen that, because the Order prevented him from performing his job duties, it was posting his position as vacant.⁴ In 3 more weeks, on February 16, 2006, Dominion terminated Mr. Geisen’s employment, voluntarily paying him through the end of that month, while observing that his work had been appreciated and that he would be welcome to discuss possible re-employment were the Order to be lifted.⁵

The Order arose from events that transpired at the Davis-Besse Nuclear Power Station following the NRC’s August 3, 2001, issuance of Bulletin 2001-001, “Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles” [ADAMS Accession No. ML012080284] (Bulletin). At that time, Mr. Geisen was employed at the Davis-Besse facility by FirstEnergy Nuclear Operating Company (FENOC) as Manager of Design Basis Engineering.⁶ According to the Order, the Bulletin required that FENOC (and all other pressurized water nuclear power reactor operators) provide the NRC with certain information about the structural integrity of the reactor pressure vessel head penetration nozzles.⁷ The Bulletin also required that this information be submitted in written responses in accordance with 10 C.F.R. § 50.54(f), i.e., the responses needed to be “signed under oath or affirmation, to enable the Commission to determine whether or not the license should be modified, suspended, or revoked.”⁸

¹ David Geisen; Order Prohibiting Involvement in NRC-Licensed Activities (Effective Immediately), 71 Fed. Reg. 2571 (Jan. 17, 2006).

² David Geisen’s Opposition to the NRC Staff’s Motion To Hold the Proceeding in Abeyance (Mar. 30, 2006) [hereinafter Geisen Opposition], Attach. A, Decl. of David Geisen (Mar. 30, 2006) ¶ 7.

³ *Id.* ¶ 11.

⁴ *Id.* ¶ 12.

⁵ *Id.* ¶ 13; Geisen Opposition, Attach. B, Letter from Lori J. Armstrong, Director Nuclear Engineering, Dominion Energy Kewaunee, Inc., to David Geisen (Feb. 16, 2006).

⁶ Order, 71 Fed. Reg. at 2571.

⁷ *Id.*

⁸ *Id.* at 2571-72.

The Order alleges that Mr. Geisen violated 10 C.F.R. § 50.5(a)(2) by deliberately submitting information that he knew was incomplete and inaccurate in some respect material to the NRC. Specifically, Mr. Geisen is accused of providing materially incomplete and inaccurate information by (1) concurring on written responses — sent to the NRC on September 4, October 17, and October 30, 2001, in response to the Bulletin — that Mr. Geisen knew contained incomplete and inaccurate information; and (2) assisting in the preparation and presentation of incomplete or inaccurate information during internal meetings on October 2 and October 10, 2001, and during meetings or teleconferences held with the NRC on October 3, October 11, and November 9, 2001.⁹ Based, in part, on this information, the NRC Staff allowed the Davis-Besse facility to operate until February 2002, instead of, as contemplated by the Bulletin, requiring that the plant be shut down by December 31, 2001, in order to perform inspections.¹⁰

After the Davis-Besse facility shut down in February 2002, FENOC discovered that boric acid leaking through nozzle cracks had eaten through the entire 6.63-inch-thick low-alloy steel portion of the reactor pressure vessel head, leaving the less than 1/3-inch-thick stainless steel cladding as the only reactor coolant system pressure boundary.¹¹ In March 2002, FENOC reported the large cavity to the NRC, which thereupon conducted an inspection of the facility.¹²

On April 22, 2002, the NRC Office of Investigation (OI) initiated an investigation to determine whether FENOC or any individual employees at the Davis-Besse facility had failed to provide complete and accurate information to the NRC in the responses to the Bulletin and during the related meetings and conference calls.¹³ Upon completing its 16-month investigation, the OI issued a report on August 22, 2003, which was also referred to the United States Department of Justice (DOJ) and the United States Attorney for the Northern District of Ohio.¹⁴ In the meantime, in October 2002, having been offered a lesser position at another

⁹ *Id.* at 2574-75.

¹⁰ *Id.* at 2575.

¹¹ *Id.* at 2572.

¹² *Id.* As it turned out, the plant remained shut down for 2 years in order to replace the damaged reactor vessel head and to make other safety improvements. NRC Press Release No. III-04-011, NRC Approves Davis-Besse Restart (Mar. 8, 2004), ADAMS Accession No. ML040680717.

¹³ Order, 71 Fed. Reg. at 2572.

¹⁴ *Id.* Eventually, FENOC agreed to pay the NRC a \$5.45 million civil penalty and, as part of an agreement with the Department of Justice to defer prosecution of the company, acquiesced to \$28 million in penalties, restitution, and community service projects. News Release, FENOC, “FirstEnergy Nuclear Operating Company Pays NRC Fine Bringing Regulatory Closure to Davis-Besse Reactor Head Issue” (Sept. 14, 2005); News Release, DOJ, “FirstEnergy Nuclear Operating Company to Pay \$28 Million Relating to Operation of Davis-Besse Nuclear Power Station” (Jan. 20, 2006).

FENOC facility, Mr. Geisen instead went to work at Dominion's Kewaunee as a Quality Assurance/Quality Control Manager.¹⁵

On January 19, 2006, approximately 2 weeks after the NRC eventually issued its Order banning Mr. Geisen from the nuclear industry and nearly 4 years after the Davis-Besse problems came to light, Mr. Geisen was indicted in the United States District Court for the Northern District of Ohio for allegedly violating 18 U.S.C. §§ 1001 and 1002.¹⁶ The indictment covers essentially the same issues and facts as the Order, and Mr. Geisen has pled not guilty to all charges.

In late February, exercising his right under 10 C.F.R. § 2.202, Mr. Geisen timely requested a hearing to contest the matters set out in the Order.¹⁷ This Licensing Board was established on March 16 to consider Mr. Geisen's hearing request.¹⁸ With the NRC Staff indicating on March 20 no objection thereto, we granted that request on March 27 (after holding a prehearing conference in this and other related proceedings on March 22).¹⁹

Although the NRC Staff did not oppose Mr. Geisen's hearing request, it simultaneously filed the motion currently at issue, requesting — on behalf of the Department of Justice, which supplied an affidavit (discussed in Part III) outlining why it believed delay was necessary — that we hold this enforcement proceeding in abeyance until the criminal proceeding ends. Mr. Geisen strongly opposed the Staff's motion and sought to move forward with this proceeding.

We set oral argument on the Staff's motion for April 11, 2006.²⁰ In doing so, we informed the parties that we expected them both to provide us "detailed and case-specific reasons" with respect to the factors supporting their respective positions, and we "strongly urged" that the DOJ lawyer who supplied the affidavit in support of the requested delay be present.²¹

Specifically, in an Order dated March 27, we recounted our prehearing conference discussion in the following fashion, under the heading "Requiring Specificity on Abeyance Factors" (emphasis in original, footnotes omitted):

In connection with the upcoming oral argument, we mentioned (Tr. at 28, 41-42) our concern — triggered by the material the Staff has put before us here — that both

¹⁵ Geisen Opposition, Attach. A, Decl. of David Geisen (Mar. 30, 2006) ¶ 7.

¹⁶ NRC Staff Motion To Hold the Proceeding in Abeyance (Mar. 20, 2006) [hereinafter Staff Motion], Attach. A, Indictment, *United States v. David Geisen, Rodney Cook, and Andrew Seimaszko*, Case No. 3:06CR712 (Jan. 19, 2006).

¹⁷ Answer and Demand for an Expedited Hearing (Feb. 23, 2006).

¹⁸ 71 Fed. Reg. 14,958 (Mar. 24, 2006). Licensing Boards with the same membership are presiding over challenges to related Staff Enforcement Orders. *See id.* at 14,958-59 & note 128, below.

¹⁹ *See* Licensing Board Memorandum and Order Summarizing Conference Call (Mar. 27, 2006) at 2 (unpublished) [hereinafter March 27 Order].

²⁰ March 27 Order at 4-5.

²¹ *Id.* at 5.

parties be prepared to provide some detail about the various factors that are to be considered in reaching a determination on the abeyance issue (*see, e.g., Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 59 (1993)). In that regard, we emphasized that the Staff should consider having present at the argument the Department of Justice representative upon whom they have been relying (Tr. at 29-30). While not going so far as to *direct* his presence, as the Memorandum of Understanding between the two agencies seems to contemplate we might do (Tr. at 50-51; MOU, 53 Fed. Reg. 50317, 50319 (Dec. 14, 1988)), the Board strongly urged that he be present. We indicated that an inability by the Staff to provide *detailed and case-specific reasons* underlying a Government claim that a particular factor weighs in favor of abeyance could well — under principles such as those set out in the *Oncology* decision cited above — result in a ruling that the Government not receive credit for that factor (Tr. at 28-30). The same principle applies, of course, to Mr. Geisen’s presentation.

The DOJ lawyer did not appear at the oral argument, the Staff having by letter informed us beforehand that he would not be present and having relayed to us his reasons for not appearing.²² The argument was duly held, and the matter taken under advisement.

II. THE FACTORS

Under the Commission’s regulations, hearings on immediately effective orders are to be conducted “expeditiously.”²³ Those regulations indicate, however, that a “presiding officer may, on motion by the staff or any other party to the proceeding, where *good cause* exists, delay the hearing on the immediately effective order at any time for such periods as are consistent with the due process rights of the . . . affected parties.”²⁴ In this Part, we elaborate on the legal standards governing hearing delays.

In the Statement of Considerations adopting the good cause rule, the Commission explained that “the presiding officer will grant a delay *only* if there is an *overriding public interest* for the delay.”²⁵ In applying this principle in *Oncology Services Corp.*, where it found the delay justified, the Commission emphasized

²² The relevant text of the letter is reproduced at p. 561, below.

²³ 10 C.F.R. § 2.202(c)(1).

²⁴ 10 C.F.R. § 2.202(c)(2)(ii) (emphasis added).

²⁵ Final Rule: “Revisions to Procedures To Issue Orders: Challenges to Orders That Are Made Immediately Effective,” 57 Fed. Reg. 20,194, 20,197 (May 12, 1992) (emphasis added) [hereinafter Immediately Effective Revisions].

that the “determination of whether a delay is reasonable depends on the facts of a particular case and requires a balancing of the competing interests.”²⁶

More specifically, the Commission weighed five factors to determine whether there was good cause to delay a proceeding regarding an immediately effective license suspension order. As set out by the Commission in *Oncology*²⁷ and recently reaffirmed,²⁸ those five factors are: (1) the length of the delay, (2) the reason for the delay, (3) the risk that the ruling erroneously deprived the subject of its license (or other right in issue), (4) the subject’s assertion of his or her right to a hearing, and (5) the prejudice to the subject.

Although the Commission recognized that the five factors it listed in *Oncology* are not necessarily exclusive,²⁹ and that others might come into play in other situations,³⁰ those factors do provide an appropriate framework for determining whether good cause exists in this case. Accordingly, we begin by examining, in

²⁶ *Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 50 (1993).

²⁷ *Id.* at 50-51.

²⁸ *Andrew Siemaszko*, CLI-06-12, 63 NRC 495, 500 (2006). In *Siemaszko*, which we discuss *passim*, the Commission affirmed a Licensing Board’s grant of an indefinite stay pending the outcome of a related federal criminal proceeding.

²⁹ These factors are drawn from United States Supreme Court opinions determining whether certain trial delays were constitutional. See *Federal Deposit Insurance Corp. v. Mallen*, 486 U.S. 230 (1988) (applying a five-factor test to determine whether a delay in a post-suspension hearing violated Fifth Amendment due process); *United States v. Eight Thousand Eight Hundred and Fifty Dollars in United States Currency*, 461 U.S. 555 (1983) (applying four factors to determine whether a delay in a forfeiture proceeding violated the Fifth Amendment right against deprivation of property without due process); *Barker v. Wingo*, 407 U.S. 514 (1972) (applying a four-factor test to determine whether a delay violated the Sixth Amendment right to a speedy trial). Quoting from one of these cases, the Commission observed that “none of these factors is a necessary or sufficient condition for finding unreasonable delay. Rather, these elements are guides in balancing the interests of the claimant and the Government to assess whether the basic due process requirement of fairness has been satisfied in a particular case.” *Oncology*, CLI-93-17, 38 NRC at 51 (quoting *\$8,850*, 461 U.S. at 565). The Commission also noted that in another of these cases, the Court stated that it “did not intend for its test to comprise the exclusive factors considered in every case” because a “balancing test necessarily compels courts to approach speedy trial cases on an *ad hoc* basis. We can do little more than identify some of the factors which courts should assess in determining whether a particular defendant has been deprived of his right.” *Id.* at 50 (quoting *Barker*, 407 U.S. at 530).

³⁰ For example, some courts have considered these factors: convenience in managing their caseload and efficiency in using their resources, the interests of nonparties, and the public interest. See, e.g., *Keating v. Office of Thrift Supervision*, 45 F.3d 322, 324-25 (9th Cir. 1995); *Federal Savings & Loan Insurance Corp. v. Molinaro*, 889 F.2d 899, 903 (9th Cir. 1989); *Hicks v. City of New York*, 268 F. Supp. 2d 238, 241 (E.D.N.Y. 2003); *Walsh Securities, Inc. v. Cristo Property Management*, 7 F. Supp. 2d 523, 526-27 (D.N.J. 1998). None of these factors appears particularly relevant here although, in terms of Board efficiency, avoiding any further delay here might — but might not — provide an opportunity to consolidate Mr. Geisen’s hearing with that of two other former Davis-Besse employees who were also the subjects of Staff Enforcement Orders but who were not indicted. See March 22 Tr. at 8-10, & note 128, below.

the order most helpful here, the considerations pertinent to each of the *Oncology* factors.

1. *Length of Delay*

The length of the delay is an important factor in considering whether to postpone the hearing on an immediately effective order because the Commission's regulations require that such hearings be "conducted expeditiously."³¹ Although expedition is judged against the circumstances in each case, it would — by analogy to judicial decisions on stays — normally be an abuse of discretion to order an indefinite delay when a lesser alternative is available.³²

In *Oncology*, the Commission found there are "several points of reference" that are relevant when examining whether a delay is justified.³³ Specifically, the Commission examined: (1) the time between the alleged violation and the end of the requested delay, because it is relevant to the impact on the subject's ability to mount a defense; (2) the time between the issuance of the immediately effective order and the end of the requested delay, because it is relevant to the harm to the subject's interests; and (3) the total time of the requested delay because it is relevant to the reason for the delay.³⁴ (As will be seen in Part III, the second of these points proves the most significant here.)

Additionally, the Commission indicated that it is appropriate to consider the nature of the proceeding when measuring whether a given delay is reasonable. For example, "a delay may require a strong justification in a proceeding to revoke a license which depends to a great extent on the testimony of witnesses," but "in a civil penalty proceeding where the penalty has not been paid and the proceeding depends less on witness testimony, a delay may need less justification."³⁵ In *Oncology*, the delay issue involved tacking an additional 3 months onto an existing 8-month-long delay in a license revocation proceeding that did depend

³¹ 10 C.F.R. § 2.202(c)(1).

³² See *Landis v. North American Co.*, 299 U.S. 248, 255 (1936) (noting that it would be an abuse of discretion to grant a "stay of indefinite duration in absence of pressing need"); *In re Ramu Corp.*, 903 F.2d 312, 318-19 (5th Cir. 1990) ("discretionary stays . . . will be reversed when they are 'immoderate or of an indefinite duration'") (quoting *McKnight v. Blanchard*, 667 F.2d 477, 479 (5th Cir. 1982)); *McSurely v. McClellan*, 426 F.2d 664, 672 (D.C. Cir. 1970) ("an indefinite stay . . . should not be entered unless no alternative is available"). Cf. *Siemaszko*, CLI-06-12, 63 NRC at 500 (recognizing, in the course of upholding an indefinite delay (see note 28, above), that this Agency has "rarely, if ever, held an enforcement proceeding in abeyance for an indeterminate length of time").

³³ *Oncology*, CLI-93-17, 38 NRC at 52.

³⁴ *Id.*

³⁵ *Id.* at 53.

on witness testimony; thus, a “strong justification” for the delay was required.³⁶ The Commission stated that in such a case, the aggregate 11-month delay being sought (which it upheld) would be “tolerable only if Staff can demonstrate an *important government interest* [supporting the delay] coupled with factors minimizing the risk of an erroneous deprivation.”³⁷

2. Reason for Delay

The Commission has instructed licensing boards passing upon delay requests to evaluate whether there is an overriding public interest requiring a delay.³⁸ In that regard, the Commission noted, in promulgating the regulations for challenging immediately effective orders, that a “prime example” of a delay that might be warranted is “the temporary need to halt the proceeding where continuation would interfere with a pending criminal investigation or jeopardize prosecution.”³⁹ The Commission later stressed, however, that “the pendency of a criminal trial does not automatically toll the time for instituting a civil proceeding” because “it is necessary to look at the facts of a particular proceeding.”⁴⁰

Thus, in cases where the moving party demonstrates that the administrative enforcement proceeding will interfere with the criminal prosecution, a delay could be warranted. In cases where the moving party fails to demonstrate that the enforcement proceeding will interfere, however, a delay would not be warranted.

In other words, sometimes the pendency of a criminal prosecution necessitates delaying a parallel civil or administrative proceeding,⁴¹ and sometimes it

³⁶ *Id.*

³⁷ *Id.*

³⁸ Immediately Effective Revisions, 57 Fed. Reg. at 20,197; *Oncology*, CLI-93-17, 38 NRC at 53, 60.

³⁹ Immediately Effective Revisions, 57 Fed. Reg. at 20,197.

⁴⁰ *Oncology*, CLI-93-17, 38 NRC at 55.

⁴¹ See, e.g., *Ashworth v. Albers Medical, Inc.*, 229 F.R.D. 527 (S.D.W.V. 2005) (granting Government stay request in private civil suit); *Benevolence International Foundation v. Ashcroft*, 200 F. Supp. 2d 935 (N.D. Ill. 2002) (granting Government stay request in suit challenging Department of Treasury asset-blocking order); *Twenty First Century Corp. v. LaBianca*, 801 F. Supp. 1007 (E.D.N.Y. 1992) (granting joint Government/co-defendant stay request in civil RICO fraud suit); *St. Paul Fire & Marine Insurance Co. v. United States*, 24 Cl. Ct. 513 (1991) (granting Government stay request in contract case); *United States v. Funds Held in the Names or for the Benefit of Wetterer*, 138 F.R.D. 356 (E.D.N.Y. 1991) (granting Government stay in civil forfeiture proceeding).

does not.⁴² Other times, remedies short of complete abeyance might be appropriate.⁴³

In sum, in examining whether to delay an enforcement proceeding due to the pendency of a parallel criminal proceeding, there is no ready-made answer. Instead, a Licensing Board must separate remedial theories that find particularized support in the circumstances presented from those that do not.⁴⁴

There are a number of different concerns that might cause either the criminal defendant or the Government prosecutor to seek delay of the civil proceeding. For example, the criminal defendant may seek a stay because of the pressures that the parallel proceedings place on the Fifth Amendment right against self-incrimination;⁴⁵ because of concerns that the prosecutors can use civil discovery as an end-around, evading the limits of the Federal Rules of Criminal Procedure

⁴² See, e.g., *In re Ramu Corp.*, 903 F.2d 312 (5th Cir. 1990) (granting writ of mandamus and lifting stay which was requested by the Government in civil forfeiture proceeding); *Securities & Exchange Commission v. Saad*, 229 F.R.D. 90 (S.D.N.Y. 2005) (denying Government-requested discovery protections in SEC civil enforcement proceeding); *Horn v. District of Columbia*, 210 F.R.D. 13 (D.D.C. 2002) (denying Government stay request in civil action); *United States v. Geiger Transfer Service*, 174 F.R.D. 382 (S.D. Miss. 1997) (denying Government stay request in False Claims Act suit); *In re Ross*, 162 B.R. 860 (B. Ct. D. Idaho 1993) (denying Government stay request in tax suit); *United States v. All Funds on Deposit in Any Account at Certain Financial Institutions Held in the Names of Certain Individuals*, 767 F. Supp. 36 (E.D.N.Y. 1991) (denying Government stay request in civil forfeiture proceeding); *C3, Inc. v. United States*, 4 Cl. Ct. 790 (1984) (denying Government stay request in contract case).

⁴³ See, e.g., *Securities & Exchange Commission v. Doody*, 186 F. Supp. 2d 379 (S.D.N.Y. 2002) (granting Government stay request as it relates to disclosure of SEC interview transcripts and deposition of criminal witnesses); *Harris v. United States*, 933 F. Supp. 972 (D. Idaho 1995) (granting Government stay request but limiting it to confidential documents and compelled statements); *United States v. Swissco Properties Within the Southern District of Florida*, 821 F. Supp. 1472 (S.D. Fla. 1972) (granting Government stay request only as it relates to disclosure of unidentified informants or case agents). See also Milton Pollack, *Parallel Civil and Criminal Proceedings*, 129 F.R.D. 201, 211 (1990) (“I should stress that a general stay of all civil discovery is not by any means the best option available to the court or to the litigants”) [hereinafter *Parallel Civil & Criminal Proceedings*].

⁴⁴ See *Oncology*, CLI-93-17, 38 NRC at 55; *Siemaszko*, CLI-06-12, 63 NRC at 502 (indicating, in the course of upholding an indefinite delay, that the “Staff’s mere assertion that it wishes to protect DOJ’s pending criminal prosecution . . . does not, without more, justify holding our parallel administrative proceeding in abeyance”).

⁴⁵ See *Baxter v. Palmigiano*, 425 U.S. 308, 318 (1976) (holding that the Fifth Amendment does not prevent the trier of fact from making an adverse inference “where the privilege is claimed by a party to a civil cause”); *Keating v. Office of Thrift Supervision*, 45 F.3d 322, 325 (9th Cir. 1995) (instructing that “the extent to which the defendant’s fifth amendment rights are implicated” should be considered in deciding whether to stay a civil proceeding); *Securities & Exchange Commission v. Dresser Industries*, 628 F.2d 1368 (D.C. Cir. 1980) (noting that the “noncriminal proceeding, if not deferred might undermine the party’s Fifth Amendment privilege against self-incrimination”).

to learn the basis of the criminal defense;⁴⁶ or because the burden of litigating on two fronts undermines the defendant's ability to present an adequate defense.⁴⁷

The Government, often at the behest of the Department of Justice, may also seek to stay the civil side of parallel proceedings for a number of reasons. Generally, these reasons relate to concerns over the broader nature of civil discovery because, just as the Government may be tempted to use the civil process to strengthen its criminal case, the criminal defendant may also seek to use the civil system for an improper purpose. Often-given examples are that increased discovery in the civil proceeding would provide opportunity for intimidation of the prosecution's witnesses; would encourage perjury, or the manufacturing or destruction of evidence; and would give the criminal defendant an unfair advantage because the privilege against self-incrimination can turn civil discovery into a one-way street useful only to the criminal defendant.⁴⁸

In considering the reason for the requested delay, *it is important to consider which party initiated the civil action and which party is seeking relief from its going forward.*⁴⁹ For example, in *Campbell v. Eastland*, the criminal defendant, not the Government, initiated the civil suit⁵⁰ and then requested discovery to obtain documents that would not be available in the criminal proceeding; the

⁴⁶ *United States v. Kordel*, 397 U.S. 1, 11-12 (1970) (suggesting constitutional violations may arise if the Government brought a civil action "solely to obtain evidence for its criminal prosecution"); *Dresser*, 628 F.2d at 1375 (suggesting a stay would be justified where there is agency bad faith or malicious Government tactics).

⁴⁷ See, e.g., *Keating*, 45 F.3d at 325 (considering "the burden which any particular aspect of the proceedings may impose on defendants" when deciding whether to stay a parallel civil proceeding).

⁴⁸ See *Campbell v. Eastland*, 307 F.2d 478, 487 (5th Cir. 1962) (instructing that "a judge should be sensitive to the difference in the rules of discovery in civil and criminal cases" and that "[s]eparate policies and objectives support these different rules"); *Nakash v. Department of Justice*, 708 F. Supp. 1354, 1365-66 (S.D.N.Y. 1988) (observing that Government stays are requested "because of concerns that (1) the broad disclosure of the essentials of the prosecution's case may lead to perjury and manufactured evidence; (2) the revelation of the identity of prospective witnesses may create the opportunity for intimidation; and (3) the criminal defendants may unfairly surprise the prosecution at trial with information developed through discovery, while the self-incrimination privilege would effectively block any attempts by the Government to discover relevant evidence from the defendants") (citing *Founding Church of Scientology v. Kelley*, 77 F.R.D. 378, 380-81 (D.D.C. 1977)); *Parallel Civil & Criminal Proceedings*, 129 F.R.D. at 210 ("The question presented is whether the policy underlying the limited scope of discovery under the criminal rules justifies withholding legitimate discovery in these civil litigations. That policy is rooted in concerns about possible perjury, manufacture of false evidence and intimidation of confidential Government informants.').

⁴⁹ See *Parallel Civil & Criminal Proceedings*, 129 F.R.D. at 201 ("it is important to remember who is seeking relief in one or the other of the parallel cases").

⁵⁰ *Campbell*, 307 F.2d at 490. The statement there (307 F.2d at 487) that "[a]dministrative policy gives priority to the public interest in law enforcement" has occasionally been cited for the proposition that a stay of the civil proceeding is *always* appropriate when there is a parallel criminal proceeding.

(Continued)

court concluded that there were strong indications that the civil suit was brought only to obtain these documents and thus, at the Government's instance, denied the discovery request. Similarly, in a case where the Government filed both a False Claims Act and a criminal indictment, part of the court's justification for denying the Government's request for a stay was because "it [was] the Government that . . . created the conflict between the civil and criminal cases by simultaneously filing those actions."⁵¹

Regardless of which party requests the delay, simply reciting one of the above-mentioned principles does not entitle the moving party to relief. As we explicitly advised the litigants here (*see* pp. 533-34, above), *the party requesting the delay must provide detailed and specific reasons demonstrating some type of cognizable harm would result absent that relief.*⁵²

For example, in *Oncology*, the Commission affirmed the Licensing Board's approval of a delay that was granted because the premature release of witness interview transcripts and documentary information would interfere with an NRC Office of Investigation (OI) ongoing investigation into possible incomplete or inaccurate statements by the licensee's employees and officials.⁵³ The Commission found that the agency's "strong interest in ensuring truth and accuracy of information provided to the Commission" would be undermined if the personnel were given the opportunity "to tailor their testimony or statements in subsequent interviews so as to explain previous statements in order to avoid culpability or conform testimony with the testimony of others who have been interviewed."⁵⁴

See, e.g., Staff Motion at 10-11. As Judge Pollack has pointed out, however, "[t]hose who read Judge Wisdom's dicta to require a stay of civil proceedings are in error." *Parallel Civil & Criminal Proceedings*, 129 F.R.D. at 202. It may have been such a misreading of *Campbell*, where the civil action was *not* brought by the Government and did *not* further the public interest, that led to one of the Government's mistaken arguments here — i.e., that a criminal case involves the public interest while a civil case always involves only a private interest — an argument we address in note 113, below.

⁵¹ *United States v. Geiger Transfer Service*, 174 F.R.D. 382, 385 (S.D. Miss. 1997).

⁵² *Ramu*, 903 F.2d at 320 (holding that the moving party "should at least be required to make a specific showing of the harm it will suffer without a stay and why other methods of protecting its interests are insufficient" and that "[a]ny determination of 'good cause' . . . must be accompanied by specific findings of fact and determinations that the [moving party] will suffer specific forms of prejudice"); *United States v. Thirteen Machine Guns & One Silencer*, 689 F.2d 861, 864 (9th Cir. 1982) (holding that the Government's delay in instituting a forfeiture action violated due process right to a prompt hearing because, *inter alia*, "conclusory allegations that a forfeiture action would jeopardize its criminal prosecution are clearly not sufficient"); *General Dynamics Corp. v. Selb Manufacturing Co.*, 481 F.2d 1204, 1212 (8th Cir. 1973) (finding indefinite postponement of civil proceeding to be unreasonable because *a party seeking to postpone civil discovery has the burden to make "a particular and specific demonstration of fact, as distinguished from stereotyped and conclusory statements"*) (emphasis added).

⁵³ *Oncology*, CLI-93-17, 38 NRC at 55. Here, all investigations are over (*see* pp. 532-33, above).

⁵⁴ *Id.* at 54-55.

There, the OI had indicated in an affidavit that it anticipated conducting an additional twenty-five interviews before it concluded its investigation.⁵⁵

In contrast, where the moving party fails to demonstrate some type of specific harm that would result from allowing the proceeding or discovery to continue, delays are routinely denied.⁵⁶ In discussing the need for a detailed and specific reason for delay, the Fifth Circuit has explained:⁵⁷

Since any relationship between criminal and civil cases raises the prospect of civil discovery abuse that can prejudice the criminal case, good cause requires more than the mere possibility of prejudice. . . . The [moving party] should at least be required to make a specific showing of the harm it will suffer without a stay and why other methods of protecting its interests are insufficient. Any determination of “good cause” that warrants a stay simply must be accompanied by specific findings of fact and determinations that the [moving party] will suffer specific forms of prejudice.

The Commission applied this requirement of specificity in *Oncology*, finding it had been met by one side but not by the other.⁵⁸ This point was emphasized again in *Siemaszko*, where the Commission stated that “the weight to be given the Staff’s reason for seeking an abeyance turns on the quality of the *factual record*.”⁵⁹

⁵⁵ *Id.* at 56.

⁵⁶ See, e.g., *Ramu*, 903 F.2d at 320 (lifting stay because the Government failed to demonstrate prejudice to a pending criminal case or investigation); *Dresser*, 628 F.2d at 1384 (finding that the enforcement subpoena does not inappropriately interfere with the criminal process because the only alleged prejudice caused by “the parallel nature of the proceedings is speculative and undefined”); *Horn*, 210 F.R.D. at 16 (“claim of ‘likely . . . interference’ falls far short of the showing of ‘hardship or inequality’ required to establish . . . good cause”); *Geiger*, 174 F.R.D. at 385 (“the mere relationship between criminal and civil proceedings, and the resulting prospect that discovery in the civil case could prejudice the criminal proceeding, does not establish the requisite good cause for a stay”); *Volmar Distributors, Inc. v. New York Post Co.*, 152 F.R.D. 36, 40 (S.D.N.Y. 1993) (“speculation about death or witness intimidation is simply insufficient to overcome the real probability of substantial prejudice”); *Digital Equipment Corp. v. Currie Enterprises*, 142 F.R.D. 8, 14 (D. Mass. 1991) (“[c]onclusory allegations of potential abuse or simply the opportunity for the plaintiff to exploit civil discovery are generally unavailing to support a motion for stay”). See also *Securities & Exchange Commission v. Oakford Corp.*, 181 F.R.D. 269, 272-73 (S.D.N.Y. 1998) (“the happenstance that in defending themselves against the serious civil charges that another Government agency has chosen to file against them they obtain certain ordinary discovery that will also be helpful in the defense of their criminal case, there is no cognizable harm to the Government in providing such discovery beyond its desire to maintain a tactical advantage”).

⁵⁷ *Ramu*, 903 F.2d at 320 (citations omitted).

⁵⁸ Compare *Oncology*, CLI-93-17, 38 NRC at 54-56 (holding that the Government’s affidavit contained “adequate specificity”), with *id.* at 59 (finding that the defendant’s harm was not adequately detailed because of the lack of financial specificity).

⁵⁹ CLI-06-12, 63 NRC at 503 (emphasis in original).

3. *Prejudice to Individual*

To ensure that a hearing delay comports with the requirements of due process, the decision to grant a delay requested by the Government must “take into consideration not only the interests of the Government but of the persons affected by the order as well.”⁶⁰ In the case of an immediately effective enforcement order, this requires considering the potential prejudice that the delay will cause to the subject of the order, including prejudice to the subject’s ability to defend against the charge and prejudice to the subject’s private interests as a result of the order.⁶¹

The first aspect of this factor, the impact on one’s ability to mount a defense in the enforcement proceeding, is relevant because during the delay witnesses may forget details or relocate and documents may be moved, stored, transferred, lost, or destroyed.⁶² Furthermore, in a complex case, a party has an interest in getting an early start on discovery to ensure the judicious use of resources.⁶³ A delay does not, however, always prejudice the subject’s ability to proffer evidence and prepare its case,⁶⁴ and, to gain credit for that type of harm, the party opposing the delay must make an affirmative showing that its ability to mount a defense will be compromised by the delay.⁶⁵

The second part of this factor, the prejudice to private interests, requires an analysis of the impacts that the enforcement order has on the private interests of the subject of the order, including any financial and reputational harm.⁶⁶ Harm to these private interests varies depending on the subject and the scope of the enforcement order.⁶⁷ Therefore, as with the prejudice to the ability to defend against the order, the harm to financial and reputational interests must be specifically established.⁶⁸

⁶⁰ Immediately Effective Revisions, 57 Fed. Reg. at 20,197. See generally *Logan v. Zimmerman Brush Co.*, 455 U.S. 422, 434 (1982); *Matthews v. Eldridge*, 424 U.S. 319, 335 (1976).

⁶¹ *Oncology*, CLI-93-17, 38 NRC at 59.

⁶² See *id.*; *Southwest Marine, Inc. v. Triple A Machine Shop, Inc.*, 720 F. Supp. 805, 809 (N.D. Cal. 1989) (“[w]itnesses relocate, memories fade, and persons allegedly aggrieved are unable to seek vindication or redress for indefinite periods of time on end”).

⁶³ *In re CFS-Related Securities Fraud Litigation*, 256 F. Supp. 2d 1227, 1239 (N.D. Okla. 2003) (finding that granting a stay and preventing early discovery in a complex case is prejudicial).

⁶⁴ See *Oncology*, CLI-93-17, 38 NRC at 59; *Barker*, 407 U.S. at 521 (“deprivation of the right to speedy trial does not per se prejudice the accused’s ability to defend himself”).

⁶⁵ Compare *Oncology*, CLI-93-17, 38 NRC at 59 (party opposing the stay failed to argue the delay would prejudice its defense), with *Finlay Testing Laboratories, Inc.*, LBP-88-1A, 27 NRC 19, 25-26 (1988) (party opposing the stay succeeded in showing prejudice due to relocation of witnesses and difficulty retrieving documents).

⁶⁶ *Oncology*, CLI-93-17, 38 NRC at 59.

⁶⁷ The Supreme Court has “repeatedly recognized the severity of depriving someone of his or her livelihood.” *FDIC v. Mallen*, 486 U.S. 230, 243 (1988) (citing cases).

⁶⁸ *Oncology*, CLI-93-17, 38 NRC at 59-60.

In *Oncology*, for example, although the movant licensee averred that the immediately effective suspension order resulted in a loss of business and financial harm, the Commission indicated that because the “*degree* of lost business or financial harm” resulting from the order was “unclear,” the movant had demonstrated only moderate or minimal harm to its interests.⁶⁹ Similarly, in *Siemaszko*, where the individual who was the subject of a suspension order (which was *not* immediately effective) had already left the industry, there was no establishment of harm to his property interests.⁷⁰ In contrast, in *Finlay Testing Laboratories*, the licensee put a dollar value on its total and monthly lost revenue and the Licensing Board had no difficulty concluding that the requested delay would cause further “financial and personal devastations.”⁷¹

4. Individual’s Assertion of Right to Hearing

The timely assertion of the right to a hearing is a relevant factor because “failure to assert the right will make it difficult for [the party opposing the delay to] prove that he was denied a speedy trial.”⁷² Thus, in an NRC enforcement proceeding, the “vigorous opposition to any stay of the proceeding and [a] constant insistence on a prompt full adjudicatory hearing are entitled to strong weight” and militate against the requested delay.⁷³

The Commission went on in *Oncology* to note that the failure, before the hearing on the merits, to challenge an order’s immediate effectiveness under 10 C.F.R. § 2.202(c)(2)(ii), was not necessarily crucial to this fourth factor because it could involve simply a strategic decision to avoid delaying the eventual resolution of the merits. In other words, because pursuing the interim remedy “could delay ultimate resolution of the final controversy,” the challenger “could hasten resolution . . . by requesting only a hearing on the merits,” which could be an “attractive” strategic option in some circumstances.⁷⁴ This, it was held, would not detract from a party’s assertion that a delay interferes with its right to a hearing; therefore, such a party would still be “entitled to all of the benefit that this factor may provide.”⁷⁵

⁶⁹ *Id.* (emphasis added). In addition, the order suspending company operations had since been relaxed in two respects: first on an ad hoc basis to allow treatment of needy patients, and second on a general basis as to certain company locations. *Id.* at 47, 60.

⁷⁰ CLI-06-12, 63 NRC at 504-05.

⁷¹ LBP-88-1A, 27 NRC at 25.

⁷² *Barker v. Wingo*, 407 U.S. 514, 532 (1972).

⁷³ *Oncology*, CLI-93-17, 38 NRC at 58.

⁷⁴ *Id.* at 58.

⁷⁵ *Id.*

5. *Risk of Erroneous Deprivation*

The decision on whether good cause exists for a delay must be “consistent with the due process rights” of the order’s target “and other affected parties.”⁷⁶ The “risk of erroneous deprivation” — i.e., the risk that the immediately effective order erroneously suspended the subject’s license or other vested interest — is one factor used to determine whether procedural due process is met when a property interest is at stake.⁷⁷ In that regard, the Commission’s regulations allow the subject of an order to challenge its immediate effectiveness, prior to the hearing on the merits, on the grounds that it “is not based on adequate evidence but on mere suspicion, unfounded allegations, or error.”⁷⁸

The Statement of Considerations for the rule governing challenges to immediately effective orders specifically discussed whether this test satisfied due process concerns.⁷⁹ The Commission concluded that the adequate evidence test “does not violate due process” and does strike the “reasonable balance between the government and the private interests” involved.⁸⁰ In *Oncology*, the Commission reaffirmed this principle and found that — because the subject of the enforcement order had been given the opportunity to challenge whether there was “adequate evidence” of the detailed allegations to justify the order’s immediate effectiveness and chose not to exercise that opportunity — the risk of erroneous deprivation was reduced, such that this factor weighed in favor of the delay request.⁸¹

Having set out the factors which provide a framework for our decision, we next turn to their application to the specific circumstances before us.

III. THE RESULT

As may be extracted from the foregoing, the critical issues to be determined when deciding an abeyance motion involve what we would call “relative harm.” That is, the moving party will argue that unless a delay of the length being sought (Factor # 1, “length of delay”) is granted, that party (or here, the entity for which it is speaking) will suffer certain types of harm to its interests (Factor # 2, “reason for delay”). The party opposing the motion will argue that if such a delay were

⁷⁶ 10 C.F.R. § 2.202(c)(2)(ii).

⁷⁷ See, e.g., *Logan v. Zimmerman Brush Co.*, 455 U.S. 422, 434 (1982); *Matthews v. Eldridge*, 424 U.S. 319, 334-35 (1976).

⁷⁸ 10 C.F.R. § 2.202(c)(2)(i).

⁷⁹ Immediately Effective Revisions, 57 Fed. Reg. at 20,195-97.

⁸⁰ *Id.* at 20,196.

⁸¹ *Oncology*, CLI-93-17, 38 NRC at 57.

granted, that party would suffer certain other types of harm to its interests (Factor # 3, “prejudice to individual”). At least implicit in the precedents is a recognition that those are ordinarily the crucial factors.

In that vein, the other factors (# 4, “assertion of hearing right,” and # 5, “risk of erroneous deprivation”) would typically be given less weight (unless, for example, the assertion was dilatory or perfunctory, or — based on some unusual early but abbreviated insight into the merits (*cf.* Immediately Effective Revisions, 57 Fed. Reg. at 20,196-97) — the risk can be shown to be either quite high or vanishingly low. In the circumstances presented here, where it turns out the balance of the first three factors tilts overwhelmingly in one direction, we would expect the other two factors — again, absent extraordinary facts or insights that do not exist here — to be insufficient to affect the outcome.

Accordingly, we devote most of our attention to an analysis of where, given the length of the delay being sought, the “relative harm” lies. We thus focus intensely on (1) whether, and if so to what extent, the Government has shown that not granting such delay (of this administrative proceeding which it brought) will harm it (in the criminal proceeding which it also brought), versus (2) whether, and if so to what extent, granting that same delay will harm Mr. Geisen. Given the outcome of that analysis, we need to pay only relatively little attention to the other two factors.

A. Factor # 1 — “Length of Delay”

This is an important factor here, where the civil enforcement order being contested is *already* in effect and the *Government* is seeking the delay. In *Oncology*, both the Licensing Board and the Commission were concerned that an incremental series of delays for defined periods, each apparently of legitimate duration, were adding up to too long a period.⁸²

Here, the Government has requested an indeterminate delay, which at one point was seemingly portrayed as brief, but which we now understand would be both undefined and lengthy. In support of its position, the Government has cited instances where delays of particular duration, one as long as 4 years, were accepted by adjudicators.

But examination of each cited decision reveals that the reasonableness of the length of the delay can be determined only in light of the relative harm thereby being inflicted and/or avoided.⁸³ For example, the 4-year stay cited by the Government was reasonable, *despite* the fact that the court found that 4 years was “lengthy,” precisely because (1) the parallel civil proceedings may have required

⁸² See *Oncology*, CLI-93-17, 38 NRC at 52, and LBP-93-10, 37 NRC 455, 460 (1993).

⁸³ See *Oncology*, CLI-93-17, 38 NRC at 52-53.

that the Government turn over “sensitive information,” and (2) the defendant was not prejudiced by the delay.⁸⁴

With respect to the anticipated length of the projected delay here, the Government’s brief (Staff Motion at 12 n.42) — relying on an affidavit prepared by one of the federal prosecuting attorneys, Thomas T. Ballantine of the Department of Justice — focused our attention on the Speedy Trial Act’s mandate that the criminal trial start within 70 days of arraignment (18 U.S.C. § 3161(c)(1)) and pointed out that Mr. Geisen’s arraignment had taken place on February 1, 2006. We still find troubling (*see* April 11 Tr. at 33-34) that the Government would so carelessly leave it open to us to infer that the criminal trial would be held in April and thus that the delay being sought was quite short.⁸⁵ Probing deeper into the procedural aspects of the criminal proceeding has revealed that the delay being sought is of indefinite duration, and will likely stretch at least a year — and possibly well beyond — from the date of the Order.⁸⁶

In examining how long a delay would be “too long,” we thought that where, as here, the challenged suspension order is in force and is of 5 years’ duration, the Government would concede that a 5-year delay in its resolution would be too long. It would, however, not do so.⁸⁷ On the other hand, had the Government been correct in its apparent implication that the criminal trial would be conducted speedily and would be concluded by this summer, we might have viewed the corresponding delay as reasonable.

Rather than try to ascertain a specific delay length — between the above-noted extremes — that would pass muster, we look instead at the case’s general posture: (1) the events at issue are already over 4 1/2 years old, owing to the length of the Government’s investigations; (2) the criminal case is threatening to move

⁸⁴ *United States v. United States Currency in the Amount of \$228,536.00*, 895 F.2d 908, 917 (2d Cir. 1990).

⁸⁵ In our March 27 Order, we had (in note 7) taken

the opportunity to re-emphasize . . . the concern we expressed (Tr. at 40-42) implicating the level of candor and/or thoroughness thus far evident in the Government’s presentation insofar as it touches on the workings and impact of the Speedy Trial Act, 18 USC § 3161. With respect to the projected length of the stay the Staff is seeking to obtain, we expect at the oral argument to be given accurate and complete descriptions both of that Act’s provisions and of their application in the *Geisen* criminal proceeding.

⁸⁶ *See* April 11 Tr. at 34 (observing that the time to file motions was, by the court’s order, excluded from the Speedy Trial Act calculations, and that the time such motions are under consideration is, by the statute’s own terms, automatically so excluded); and 62-63, 95-96 (noting the possibility of a “complex case” designation and further excludable time). *See also* Geisen Opposition at 6 (indicating that the March 24 motions date was not a firm one and that the May 24 status hearing date will likely set a more “realistic motions schedule”).

⁸⁷ April 11 Tr. at 37-38.

slowly;⁸⁸ and (3) we face the prospect — if we granted the relief the Government seeks — of delaying all prehearing activities herein until after the criminal trial is concluded. From what we have gleaned from the parties about the prospects for the criminal case (*see* April 11 Tr. at 35, 63), that would leave us as well over a year from the date of the immediately effective Order before we could even start our prehearing/hearing process. This could mean that, by virtue of the delay, Mr. Geisen would have served at least 20% of the contested 60-month suspension in limbo before our review process was even launched.

Given the degree to which that order is prejudicing Mr. Geisen's choice of career, stream of earnings, and pursuit of happiness⁸⁹ (*see* Factor # 3, below),⁹⁰ the delay requested would end up of far too long a duration unless justified by an important — and specifically stated and supported — governmental need or interest. As will be seen, the Government did not provide support for any such need or interest, relying instead on rote incantations having no apparent relationship to the circumstances and posture of the two actions the Government has brought against Mr. Geisen.

As will become clear, the notion that all prehearing progress should be put on hold at the Government's behest is, in light of the other factors, simply indefensible. The decision we reach allows us to begin to make progress in this civil proceeding, perhaps all the way to an expeditious conclusion (barring developments that might justify delay of some later stage, were a party then to be threatened with genuine aggrievement).

In refusing to authorize a delay of indeterminate but lengthy duration, we do not give weight to, but simply note the existence of, the possibility (*see* p. 542, above) that the passage of time might threaten to cut away at the quality of the evidence, as witnesses pass on, become forgetful, or otherwise become unable to present testimony as lucid as they might have earlier.⁹¹ Here, the Government's investigation had already been underway a long time — several years — before the immediately effective suspension order was issued and the indictments were handed down. But with Mr. Geisen not expressing undue concern that delay will

⁸⁸ *See* note 86, above.

⁸⁹ *Butchers' Union Co. v. Crescent City Co.*, 111 U.S. 746, 762 (1884) (Bradley, J., concurring) (noting that the "right to follow any of the common occupations of life is an inalienable right; it was formulated as such under the phrase 'pursuit of happiness' in the declaration of independence" and that it "is a large ingredient in the civil liberty of the citizen").

⁹⁰ In contrast, in the *Siemaszko* proceeding the subject of the enforcement order had already left the industry when the order was issued, so even if that order had been immediately effective — which it was not — it would not have had the practical impact upon him that the order herein had — and still has — upon Mr. Geisen. CLI-06-12, 63 NRC at 504-505.

⁹¹ In *Oncology*, CLI-93-17, 38 NRC at 53, the Commission mentioned this possibility but at a later point seemed to discount it (*id.* at 59, citing the 5 years that elapsed in *Barker* without apparent impact on witnesses). *See also* *Siemaszko*, CLI-06-12, 63 NRC at 502, 504.

diminish the quality of the evidence (April 11 Tr. at 84), we put that possibility aside as nonspecific and do not credit it under Factor # 3, notwithstanding our own concern that — to protect the probative value of the underlying fact-based evidence — delaying the full discovery and presentation of that evidence in an already long-drawn-out proceeding should be avoided where possible.⁹²

B. Factor # 2 — “Reasons for Delay” (Harm to Government from Denial of Relief)

The Government presents two main arguments that evoke serious concerns about the negative impact the continuation of this civil enforcement proceeding could have on the district court criminal case.⁹³ One is that the civil discovery process could lead to the tainting of evidence in the criminal case, corrupting it through intimidation of witnesses, opportunity for perjury, or tampering with records (Aff. ¶ 6, Staff Motion at 6-7). The other is that the civil discovery process could lead to the defendant’s obtaining access to evidence that would provide him an unfair advantage over the Government (Aff. ¶ 6, Staff Motion at 7).⁹⁴

⁹² Compare, where the license application hearing would involve not the recounting of past events but rather expert opinion testimony still being formulated, the delay discussion in the Appendix to *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-05-29, 62 NRC 635, 708-14 (Feb. 24, 2005, as redacted Oct. 28, 2005), *affirmed as to merits*, CLI-05-19, 62 NRC 403 (2005), *appeal pending, sub nom. Utah v. NRC* (D.C. Cir. No. 05-1420).

⁹³ Before addressing the Government’s main arguments, we dismiss at the outset its apparent claim (Staff Motion at 10-12; April 11 Tr. at 11) that, apart from the specifics of a case, a criminal proceeding should take precedence over our enforcement proceedings because the Commission itself has approved a policy of giving primacy to the criminal case at the cost of deferring the civil/administrative one. The only authority cited for this remarkable proposition — remarkable in that it would seem to fly in the face of both (1) the case-specific principles the Commission adopted in its *Oncology* decision, and (2) the mandate to move expeditiously that the Commission put in the agency’s regulations — is the Commission’s endorsement of the Memorandum of Understanding with the Department of Justice. 53 Fed. Reg. 50,317 (Dec. 14, 1988). But examination of the MOU (*id.* at 50,319, Part III.C.3) reveals that, far from expressing any view as to the procedural outcome in any *particular* instance, the Commission merely agreed *generally* that the Staff would present to Licensing Boards the Justice Department’s arguments as to the procedural outcome that Department favored in each case. As Mr. Geisen’s counsel aptly put it, the MOU provides only “motivation,” not “justification,” for the Government’s motion. Geisen Opposition at 8.

Consequently, the MOU is not at all helpful on this point. If the Government is to succeed in obtaining delay, it can only be by virtue of matters specific to this case, not of the mere existence of the MOU’s general provisions about the relationship between the agencies.

⁹⁴ In the *Oncology* proceeding, the Government sought delay so as to avoid the enforcement proceeding’s interfering with other ongoing, incomplete investigations. CLI-93-17, 38 NRC at 53-54. Whatever the course to follow when investigations are still pending (*see* pp. 540-41, above, text accompanying notes 53-55), all such investigations have been completed here — so no basis for delay exists on grounds the investigatory process must be protected.

As has been seen in our earlier discussion of the factors to be considered (pp. 538-39, above), both of these arguments certainly have *theoretical* validity. But no matter how serious the concerns underlying them, they must be shown by the moving party to have some *practical* applicability to the particular circumstances of the case in order for it to prevail.

The representations made by the DOJ's Mr. Ballantine have not even come close to making such a showing here.⁹⁵ Indeed, the Government's presentation on the "tainting" claim is so lacking in any foundation that we are surprised that it was even put before us. And the "access" concern is essentially weightless in the situation before us.

1. Tainting of Evidence

All recognize that allowing certain civil cases to go forward might create the potential to harm the search for truth in a related criminal case by tainting the evidence otherwise expected to be available therein. For example, allowing prospective Government witnesses to be deposed (or even to be identified) by those in position to intimidate them explicitly or implicitly — through threats of physical violence, of workplace demotion or harassment, or of some other form of physical, financial, or emotional retaliation — might lead to the witness tailoring or limiting his testimony, professing an inability to remember the incidents in question, or disappearing from view entirely.

There is before us no indication that any such circumstances or forebodings exist here, and every indication that they do not. In the first place, Mr. Ballantine's supporting affidavit is phrased in the subjunctive, referring to practices that "may" occur.⁹⁶ This is not surprising, for the Government pointed to nothing about the circumstances of this case that "would likely" lead to such practices. Specifically, we were given no indication whatsoever that any aspect of Mr. Geisen's current status puts him in position to intimidate any witnesses. To the contrary, the outlines of the proceeding — in terms of the roles of the various participants at the time of the incidents, their earlier opportunities during the long investigations to converse and to interact with each other, and their lack of current workplace association with their previous employer and with each other — lead

⁹⁵ The Government's affidavit is couched in conclusory, non-case-specific terms, so much so that it led to our preargument admonition that more would likely be needed (*see* pp. 533-34, above). More was not forthcoming, as we point out herein.

⁹⁶ The affidavit says, on this point, only that "Mr. Geisen *may* use the administrative process to circumvent rules of criminal discovery" and that administrative depositions "*may* be intimidating." Staff Motion, Attach. B., Affidavit of Thomas T. Ballantine, Trial Attorney ¶6 (Mar. 20, 2006) (emphasis added).

us to precisely the opposite conclusion: such practices can only be viewed as very *unlikely* to occur during the course, or as a result, of this proceeding.⁹⁷

That the Government failed to make a genuine “intimidation” showing is confirmed by the position taken in its brief and at oral argument, viz., that merely having to *appear* at a deposition is intimidating in itself.⁹⁸ To be sure, deponents generally do not enjoy, and may even dread, the prospect of being questioned intensely, in a perhaps-hostile atmosphere.⁹⁹ But that natural *pre-deposition unease* — i.e., the transitory discomfort, just from having to testify at all, that is always inherent in the discovery or trial process — has nothing to do with the kind of particularized, forceful intimidation involving threats of *extra-deposition retaliation* that the law is concerned with, threats that could be communicated, subtly or otherwise, as part of the run-up to, or conduct of, the deposition, with the specific intent of causing the subsequent tainting, alteration, or disappearance of substantive evidence. Again, the Government has told us nothing (1) about Mr. Geisen’s past conduct or current existence that would support the notion of retaliation, or (2) about any prospective witnesses who fear such retaliation from him.

Another serious theoretical concern is that civil discovery can lead to perjury in the criminal case, via enabling a defendant to tailor his testimony, and that of his confederates, to jibe with, or to work around, what he learns about the state of the Government’s knowledge. But here, the Government has already completed years of investigatory work, including numerous interviews of the defendant and of his coworkers. Given the number of their statements already on the record, then regardless of what they might now learn about the Government’s case, any opportunity for them — undetected — to adjust their testimony by perjuring themselves is obviously long past. When given an opportunity to demonstrate

⁹⁷ Notably, the Board specifically inquired whether the Government had any factual basis suggesting that “Mr. Geisen ever tried to shape or influence the testimony of others or that he was less than forthcoming in the [investigatory] interviews conducted by the NRC” (April 11 Tr. at 105). The Government responded in the negative (*id.* at 106). Of course, if the Government had available information on this score it chose not to supply us, notwithstanding our repeated admonitions that its arguments would not be credited unless it presented particularized factual support (March 22 Tr. at 28-30; March 27 Order at 5), it cannot be heard to complain of its failure to obtain the requested relief. *See also* pp. 533-34, above.

⁹⁸ Staff Motion at 7 (citing Ballantine affidavit); April 11 Tr. at 17-18.

⁹⁹ We think it fair to surmise that, for similar reasons and more, the same can be said of any prospective deponents in this administrative proceeding who, as current or former Davis-Besse employees, were already subjected to interrogations by Government investigators.

otherwise, the Government (the moving party upon whom the burden falls) failed to do so.¹⁰⁰

We should clarify that in saying the Government needed to “demonstrate otherwise,” we are in no way insisting that the Government *establish* that perjury — or in the prior example, intimidation — would necessarily take place. What we are saying is that, as the movant, the Government must establish at least that conditions exist in this proceeding that would allow the defendant, were perjury or intimidation on his mind, to proceed into the civil discovery process with some chance of success in that regard. Instead, when pressed, the Government was not even able to hypothesize how that could occur in the setting, and given the history, of this proceeding.¹⁰¹ In that regard, Mr. Ballantine — the representative of the real party in interest as the DOJ proponent of the delay request — declined to appear before us, much less to enlighten us (*see* p. 561, below).

The Government fares no better on the “tampering” theory. The serious concern in this regard is that a defendant — after learning in a civil proceeding about the nature of the Government’s evidence of his possible crime — may then be able to alter evidence in his possession or control to provide a defense to the charges, or to undercut the evidence against him. This concern would be particularly troubling, for example, where a defendant was, and still is, the Chief Executive Officer, the Chief Financial Officer, or the Chief Information Officer (or some other functionary with access to, or control over, company files), at an organization associated with the alleged criminal activity. Such an “insider” would thereby have the opportunity, as civil discovery unfolded, to alter or to destroy existing company paper records or electronic files, or to fabricate and to backdate new documents, all done to bolster his position.

Again, the *theory* behind this concern is legitimate. But it is entirely inapplicable here — for Mr. Geisen has not been employed at Davis-Besse for several years, and the Government gave us no indication as to how he might employ knowledge gained through civil discovery to alter paper documents or electronic files that he has no control over whatsoever and which the Government has

¹⁰⁰ Upon being asked whether there was “evidence in the record that would suggest Mr. Geisen ever tried to shape or influence the testimony of others or that he was less than forthcoming in the interviews conducted by the NRC during the investigation,” the Staff responded that it “cannot point you to any specific fact about Mr. Geisen that he’s — that I’m aware of that he’s made statements in his interviews that we can somehow put for you as evidence.” April 11 Tr. at 17-18.

¹⁰¹ April 11 Tr. at 26. We do not discount the possibility that there may be situations in which the Government would not want to reveal publicly the nature of the witness intimidation or other mischief that it fears could occur. If such a situation were to arise, however, the Government would be capable of bringing the matter to our attention under seal, as was done in the *Siemaszko* proceeding, and it might be that we would even act on the information *ex parte* if the public interest required it. Given the posture of the case, it is not surprising that no such approach was made or suggested here.

long-since obtained through its several-year-long investigation.¹⁰² This claim too, then, borders on the specious.

2. Access to Evidence

Although one of its concerns was over the tainting of evidence, the Government takes a notably different tack in presenting another concern, i.e., that allowing civil discovery to proceed would allow the defendant to acquire valid evidence to which he would not otherwise have access. In support of this proposition, the Government stressed in its moving papers and at oral argument that (1) the drafters of the Federal Rules of Criminal Procedure created a careful, thoughtful balance as to just how much discovery a defendant could obtain, and (2) the scope of such discovery is more limited than civil discovery. The Government concludes therefrom that we should not permit anything to go forward that might alter that balance.¹⁰³

The Government's premises are true, so far as they go.¹⁰⁴ But there are at least two reasons why the Government's proposed conclusion, that the civil proceeding must be delayed, does not follow here.¹⁰⁵

¹⁰²The Staff's arguments relating to manufacturing evidence came only in the discussion of general considerations. See, e.g., Staff Motion at 7 ("One fear is that 'broad disclosure' might lead to . . . manufactured evidence.") (citing *Campbell*, 307 F.2d at 487 n.12); April 11 Tr. at 48 ("there are general factors, traditional justifications for limitations on criminal discovery and those include . . . manufacture of evidence"). Further, after counsel for Mr. Geisen confirmed the Board's suspicion that "we're not talking about manufactured evidence, because he's no longer at Davis-Besse and he can't jigger the e-mails," the Staff remained silent on the issue. See April 11 Tr. at 75.

¹⁰³Although discovery is more limited in criminal than in civil cases, it should be noted that today criminal discovery is much more expansive than it was when the *Campbell* case was decided in 1962. Professor Wright retraces the history of discovery in criminal cases in his criminal procedure treatise, stating:

When the First Edition of this Treatise was published in 1969, significant discovery in criminal cases had been available in the federal system for less than three years. The debate about criminal discovery was still vigorous. . . . By 1982, when the Second Edition was published, it said that "the debate is much more subdued, if indeed it is not over." Now that we have entered a new millennium it is clear that the debate is over. Discovery in criminal cases is a matter of course.

Charles Alan Wright, *Federal Practice & Procedure: Federal Rules of Criminal Procedure* § 252 (3d ed. 2000). Thus, to the extent that the concerns in cases such as *Campbell* arose from the great disparity between the scope of criminal and civil discovery, that gulf has since been narrowed.

¹⁰⁴See *Siemaszko*, CLI-06-12, 63 NRC at 502-03.

¹⁰⁵We need only note in passing that there are instances, involving other agencies, wherein the Government seeks not the relief it wants here but the converse: to have the *criminal proceeding held in abeyance while it pursues the civil proceeding*. Perhaps the best example involves SEC enforcement

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The first is that in this very case, as explained to us by the Government at oral argument (April 11 Tr. at 42-43), the defendant is already scheduled to receive more discovery, and earlier in the trial, than the Criminal Rules contemplate, by virtue of the U.S. Attorney's adoption of an "open file" discovery process not required by the Criminal Rules but not uncommon in federal criminal practice. To be sure, that disclosure practice is a voluntary one the U.S. Attorney has chosen to follow. But that process is taking, or already has taken, place,¹⁰⁶ and to that extent, the normal balance which the Government would have us hold sacrosanct has already been disturbed by its own action.

Far more important, as we discuss below, any "harm" to the Government's criminal prosecution that might occur from "excessive" discovery if — over the Government's objection — the civil proceeding moves forward, has to be viewed as minuscule in the circumstances of this case.¹⁰⁷ Specifically, here the Government investigated for at least 3 years the circumstances surrounding an incident that was meticulously documented, in the files of both the NRC Staff and of the highly regulated nuclear plant operating organization under whose aegis the alleged offenses occurred (and which presumably had to make all its records available to the Government).

As a result, the Government is in possession of some 19,000 documents¹⁰⁸ related to the activities that underlie the civil and criminal charges, and has already interviewed the alleged perpetrators, as well as their co-employee witnesses, several times (and has not advised us that on any of those occasions the targets declined to answer any of the inquiries). The targets of the investigations are no longer employed in the organization within which their alleged misdeeds

orders — which are not immediately effective — seeking to shut down fraudulent securities sales operations. In such instances, the Government has been known to argue that the greater public interest is in quickly depriving the defrauders of any further opportunity to bilk their customers, and that the criminal case, seeking to punish them for their transgressions, can wait. Again, that line of decisions simply demonstrates that whether to proceed with the civil or the criminal case first, or to let both move forward apace, depends on the particular circumstances. Even the *Campbell* decision explicitly recognized that there will be some occasions wherein both proceedings ought to move forward together.

¹⁰⁶We were advised at oral argument that the open-file process was underway and expected to be concluded in April (April 11 Tr. at 42-43). The Staff conceded (Staff Motion at 14) that in many respects that process was the equivalent of the party disclosures required in the enforcement proceeding before us by 10 C.F.R. § 2.336. Presumably, Mr. Geisen has been using the time that this matter has been under advisement to become familiar with the voluminous documentary evidence.

¹⁰⁷To be sure, we recognize that a demonstration of far more substantial harm might be made in other situations (*see* note 109, below). And, of course, here the Government can renew its motion for delay, or seek other appropriate relief, if circumstances arise that demonstrate that as to particular, specific aspects of civil discovery, the criminal case may be jeopardized absent action by the Board.

¹⁰⁸March 22 Tr. at 44.

occurred, and the Government did not even allege that the targets' information base is anything other than paltry compared to the Government's.

In other words, the information balance here is skewed heavily in favor of the Government. In these circumstances, allowing the target of criminal and civil proceedings brought against him by the Government to obtain — in the course of challenging expeditiously the immediately effective civil enforcement order — information he would not receive in defending against the criminal indictment does not alter that information balance to any degree that might properly be called unfair to the Government or that to any degree puts the Government at a disadvantage. That it might do so in entirely different circumstances does not provide us reason to grant the relief the Government seeks in these circumstances.¹⁰⁹

What we have, then, is precisely what Judge Rakoff¹¹⁰ pointed to in *Oakford*:¹¹¹

the happenstance that, in defending themselves against the serious civil charges that another Government agency has chosen to file against them, [the targets] obtain certain ordinary discovery that will also be helpful in the defense of their criminal case, [creates] no cognizable harm to the Government . . . beyond its desire to maintain a tactical advantage.

On its face, satisfying that Government tactical desire is not a good enough reason to visit upon Mr. Geisen the attendant serious harm it would do him, harm we discuss in the next section.

We do recognize that courts have occasionally, as in *Campbell*, granted the Government's request to delay a civil proceeding *when that proceeding has been brought*, not by the Government in furtherance of the public interest, but *by the*

¹⁰⁹ It is easy to envision cases in which, for example, (1) a targeted criminal enterprise has been operating in secret for many years, and (2) the Government's informant has been able to bring some evidence of its crimes to the attention of Government investigators, while leaving most of the critical evidence in the possession and control of the criminal enterprise. To give that enterprise access to full discovery in a civil proceeding of what the Government has learned — while the targeted individuals block the Government's reciprocal discovery by exercising their Fifth Amendment right to decline to provide testimony at deposition — would threaten unfairly to widen even more the knowledge disparity under which the Government is operating *in such a circumstance*.

Numerous other similar examples could be listed. But that type of circumstance — the hypothesis upon which the Government builds its pending motion for relief — simply does not exist here. Instead, what is before us is its nearly polar opposite.

¹¹⁰ Judge Rakoff is well acquainted with the law of white-collar crime, having, *inter alia*, (1) served for seven years as a federal prosecutor in the U.S. Attorney's office for the Southern District of New York, where he now sits, including two years as chief of business and securities fraud prosecutions; and (2) co-authored the book *RICO: Civil and Criminal Law* (1989 & 2005 supp.), including Chapter 11, "Civil and Criminal RICO: Parallel Proceedings." He also lectures on the subject at Columbia Law School.

¹¹¹ 181 F.R.D. at 272-73.

accused criminal defendant for the express or transparent purpose of creating a discovery opportunity he would not otherwise have. Other considerations that can trigger delays in such cases are situations in which the balance of knowledge is close, and in which the accused intends to avoid discovery of his position by declining to answer reciprocal questions put to him. Again, we are not faced with anything like those considerations — Mr. Geisen did not bring this proceeding, it was brought against him; the balance of knowledge favors the Government by a wide margin;¹¹² and he has already answered questions put to him by Government investigators.¹¹³

¹¹² At oral argument, the Government suggested that that balance may not be as we see it, because the voluminous investigatory file compiled as the matter made its way to the grand jury would — because of grand jury secrecy rules — be unavailable to the lawyers for the NRC Staff who would be supporting the enforcement order before us, even though it was compiled with the assistance, or at least in the presence, of NRC investigators, and outside the presence of the grand jury. April 11 Tr. at 48-49, 85-87. On this score, we were operating at a disadvantage in that DOJ counsel, familiar with criminal proceedings generally, declined to appear to address this, or any other, topic. *See* pp. 533-34, above.

In any event, counsel for Mr. Geisen advised us that his view was the opposite of what was represented by the Government (April 11 Tr. at 55-56). His view seems to be confirmed by a reading of Rule 6 of the Federal Rules of Criminal Procedure — which (1) covers only “grand jury matter[s]” and (2) even then provides an explicit process for obtaining the approval of the federal district judge supervising the grand jury to release such matters for certain purposes, which may well include agency adjudicatory enforcement proceedings such as this one. Indeed, at oral argument Staff counsel eventually conceded that any access restrictions could be lifted by the federal district judge (April 11 Tr. at 48-49).

Presumably, then, the Staff will have access in this civil enforcement proceeding to prior statements, including Mr. Geisen’s even if he declines to be deposed — a not-entirely risk-free option for him, in that it could lead us to draw certain negative inferences (April 11 Tr. at 67-68).

¹¹³ In this connection, it bears mention at this juncture that there is no merit in the Government’s argument that the criminal prosecution should take precedence because the *public* interest is at stake there, while the challenge to the civil enforcement order is intended to vindicate only a *private* interest. Were those premises true, the argument might have some merit — but it is built on an inaccurate depiction of what is at stake in the two proceedings here.

In this regard, the Government saw fit here to vindicate the public interest by proceeding in two forums simultaneously, by way of both: (1) a criminal indictment to *punish* the alleged offender; and (2) a civil enforcement to *remove* him — effective immediately — from a position in which the Government feared he could engage in similar (alleged) misdeeds harming the public health and safety. Both of these mechanisms, it is fair to say, were intended to protect the public interest as the Government saw it. *Compare* the *Campbell* analysis in note 50, above, where the civil action brought by the criminal defendant did involve only a private interest.

Looked at in that light, although Mr. Geisen’s defense against the indictment and challenge to the order are both intended to protect his private interests, both are also an integral part of the judicial scenario by which the public interest is defined. In that regard, Mr. Geisen may or may not succeed in the two proceedings brought against him. But both proceedings were brought by the Government to

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In sum, the Government has failed to bring forward specific support (*see* notes 52 and 56, above, and accompanying text) for its generalized argument that its criminal prosecution will be harmed by denying the delay it seeks.¹¹⁴ We are conscious of what the Commission recently described as the “long-established policy . . . of deferring to DOJ when it seeks a delay” of the kind sought here, and of “not lightly second-guess[ing] DOJ’s views on whether, and how, premature disclosures might affect its criminal prosecutions.”¹¹⁵ But to be entitled to that deference, DOJ must come forward, in public or if necessary in secret, with something of substance that is tailored to the circumstances of the case at hand. We do not here second-guess DOJ’s views; rather, we are compelled to hold that it presented no views of substance.

In sharp contrast, Mr. Geisen has with specificity pointed to concrete and irreparable harm he will endure were we to grant the sought delay, which would deprive him indefinitely of any opportunity to challenge the Staff’s order. We turn now to that matter.

C. Factor #3 — “Prejudice” (Harm to Mr. Geisen from Grant of Delay)

The Staff Order was immediately effective, and it had immediate impact. Quite simply, it cost Mr. Geisen a job and a career in which he was apparently well regarded.¹¹⁶ Although he has taken steps to support his family in another fashion,

vindicate the public interest, and viewed in that perspective, Mr. Geisen’s efforts to clear himself are a part of the overall process by which the public interest is ultimately defined and vindicated through adjudication.

To be sure, this vindication can be achieved in the criminal proceeding in federal district court. But it also can be achieved in the administrative proceeding before this Licensing Board: for if the NRC Staff can prove to us that Mr. Geisen should not be allowed to work in the industry, the public interest will be vindicated in that fashion; on the other hand, if the NRC Staff cannot carry its burden of proof, then the public interest will be vindicated in a different fashion, by restoring a person’s property right — protected by the Constitution — to make a livelihood by pursuing his chosen career free from unwarranted Government interference.

That such a result would also further Mr. Geisen’s private interests does not make the matter less worthy of the expeditious consideration the Commission promised. Indeed, if the rule were as the Government would appear to want it — i.e., all hearings on the merits of immediately effective civil administrative orders were to be indefinitely delayed pending the outcome of related criminal cases — serious due process implications would result, beyond those addressed by the existence of 10 C.F.R. § 2.202(c)(2)(ii).

¹¹⁴It bears mention here that *the Government’s motion does not — nor could it — suggest that allowing the criminal proceeding to go forward would hamper the Staff’s pursuit of the enforcement order*. All that is at stake here is the converse.

¹¹⁵*Siemaszko*, CLI-06-12, 63 NRC at 504.

¹¹⁶*See* Geisen Opposition, Attach. B, Letter from Lori J. Armstrong, Director Nuclear Engineering, Dominion Energy Kewaunee, Inc., to David Geisen (Feb. 16, 2006).

his present business is not a financial substitute for the career he lost.¹¹⁷ And if the suspension order is vacated, he can seek to go back to work that would not only provide him more financial income but would allow him to return to his chosen career¹¹⁸ — for his former employer has stated its readiness to consider him for reemployment if his suspension is removed.¹¹⁹ In the meantime, his new situation affects his family adversely in three important ways — by substantially reducing the family’s income and savings, by requiring extensive travel while two children are in high school, and by reducing medical insurance needed for a child’s illness.¹²⁰ Based on these facts, we find that further delay would exacerbate the “financial and personal devastation”¹²¹ that the Order caused, and therefore that the prejudice factor weighs heavily against the requested delay.

It was, we might surmise, in anticipation of precisely such a situation that the Commission directed that, generally, any hearing sought for the purpose of challenging an immediately effective enforcement order be conducted “expeditiously.” But the Government would instead have it that it can, after a long wait, instantaneously take away Mr. Geisen’s job and then force him to bide his time before he can be heard to defend against those charges.¹²²

This we cannot permit absent an overriding public interest. There being none, for us to grant the Government’s requested open-ended delay¹²³ would trammel Mr. Geisen’s due process rights.¹²⁴

¹¹⁷ April 11 Tr. at 81-82, indicating his income is at half its former level.

¹¹⁸ See *Greene v. McElroy*, 360 U.S. 474, 492 (1959) (“the right to hold specific private employment and to follow a chosen profession free from unreasonable Governmental interference comes within the ‘liberty’ and ‘property’ concepts of the Fifth Amendment”). See also note 89, above.

¹¹⁹ Geisen Opposition, Attach. B, Letter from Lori J. Armstrong, Director Nuclear Engineering, Dominion Energy Kewaunee, Inc., to David Geisen (Feb. 16, 2006).

¹²⁰ April 11 Tr. at 81-82. In relying upon factual information Mr. Geisen furnished us at the oral argument, we note that we had specifically given both sides the opportunity (and a directive) to supplement their written filings in that regard. March 27 Order at 5, quoted herein at pp. 533-34. Mr. Geisen took advantage of that opportunity, while the Government did not. In addition, late in the argument we asked the Government if it wished to have the opportunity after the argument either (1) to challenge Mr. Geisen’s factual assertions, or (2) to bolster its own assertions. The Government declined both opportunities. April 11 Tr. at 98, 107-08.

¹²¹ See the discussion of *Finlay*, p. 543, above.

¹²² In contrast, during the periods of delay in *Oncology*, steps were taken to alleviate the impact of the immediately effective order upon the company and its needy customers (see note 69, above). No analogous measures appear on the horizon in this very different situation.

¹²³ See note 127, below.

¹²⁴ Mr. Geisen has pointed to — and the Government concedes the existence of — the doctrine that he has a constitutionally protected right not to be deprived of his job without due process. April 11 Tr. at 31. The merits of the underlying facts — about which we have no knowledge and express no

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D. Factor #4 — “Protection of Interest”

As the Commission recognized in *Oncology*, this factor is satisfied by Mr. Geisen’s action in timely requesting a hearing and in strenuously opposing any delay in the merits being heard. When we place this factor on the scale, it militates against granting the delay, given Mr. Geisen’s timely and vigorous challenge, and notwithstanding his decision (*see* April 11 Tr. at 68-69) not to challenge the Order’s immediate effectiveness (*see* p. 543, above, indicating that such a decision does not diminish the credit for this factor). As we indicated at the outset, however (p. 545, above), this factor does not alter the balance appreciably, in view of the wide disparity already created by the “relative harm” factors. It is thus not necessary to our decision to indicate precisely how much weight it adds.

E. Factor #5 — “Erroneous Deprivation”

This factor calls upon us to evaluate the extent of the risk that Mr. Geisen may have been erroneously deprived of his livelihood. This necessarily would involve a degree of speculation, but the accuracy of that exercise does not seem critical in our circumstances. For, as mentioned above (p. 545), the balance in this case weighs so decisively in Mr. Geisen’s favor based on the first three factors, that it could not be altered by this factor.

Were this a closer case, we would start our analysis of this factor with the Government assertion (April 11 Tr. at 40-41) that the likelihood of error in the Staff’s enforcement order is diminished by the grand jury indictment, which is said to provide an independent assessment of the merits of the case.¹²⁵ Of course, a defendant has no right to present evidence to a grand jury, or to rebut the Government’s evidence, so the indictment represents only a finding of probable cause (roughly equivalent to the “adequate evidence” standard that would support the Order’s immediate effectiveness), and does not necessarily point to guilt. Under *Mallen*, the fact of the indictment does count in the Government’s favor, as does, under *Oncology*, the failure of Mr. Geisen to challenge the immediate effectiveness of the Order.¹²⁶ Moreover, the weight to be given this factor here

opinion — may or may not result in his recovering his career. But, under the principles we set out herein, he has to be given an early opportunity to attempt to achieve that result, absent a demonstration of an important governmental interest to the contrary.

¹²⁵ *See Mallen*, 486 U.S. at 244 (a grand jury’s return of an indictment based on the same facts underlying an immediately effective order “demonstrates that the [order] is not arbitrary”).

¹²⁶ As has been seen, *Oncology* teaches that the failure to challenge the Order’s immediate effectiveness is not crucial as to the fourth factor, for there may be strategic reasons to omit that step in seeking a hearing, but it nonetheless has weight as to the fifth factor. 38 NRC at 57. As seen in the text on p. 559, however, the usually speculative nature of the “risk” factor operates to discount that fifth factor’s impact on the overall balance.

may be increased by a consideration the Government did not mention, namely, that the Government saw fit to indict Mr. Geisen but not certain other coworkers who were also the subject of enforcement orders.

On the other hand, Mr. Geisen says (Geisen Opposition at 17-18; April 11 Tr. at 59-60) that his case for erroneous deprivation is bolstered by the fact that he turned down a deferred prosecution offer from the Department of Justice that would have guaranteed him no prison time if he would admit to the acts alleged. To be sure, accepting that offer — and thereby ensuring he would avoid prison — would have also ensured the inexorable disruption of his livelihood, by eliminating any opportunity to challenge the resulting Staff order. But following that course would have saved him the expenditure of time and resources fighting the charges, as well as the overarching threat of prison time. Under this factor, then, we credit him to this extent: he has some belief in his innocence, or at least in his ability to keep the Government from establishing his guilt before a jury, and in his ability in this forum to redeem his career.

Balancing the considerations on both sides, this factor favors the Government. But unless there were facts present or insights available that reduced the level of speculation on this factor (*see* p. 545, above) and thus increased the weight inherent in our assessment, we would assign it minimal impact on the overall balance regardless of which side it favored. Given the disparity created by the other factors, we find it does not significantly alter the overall balance.

Viewed in the light of the above analyses, the overall balance is driven by the overwhelming weight we attach to the first three factors — in requesting an indefinite delay, the Government has failed to show concretely how, in actual practice, its interests will be harmed by having the hearing before us proceed in the ordinary course, while Mr. Geisen has pointed to the serious disruptions to his life that will continue until he has a chance to vindicate himself. In the final analysis, then, our roadmap is clear — both cases, civil and criminal, can and should proceed simultaneously, on their own pathways, thereby leading to the earliest possible resolution of both, while protecting Mr. Geisen's interests and not harming any the Government has specified.

Accordingly, the Government's abeyance motion is hereby DENIED.¹²⁷ The

¹²⁷ We considered but rejected the Government's last-minute suggestion (April 11 Tr. at 99) that we grant a delay of defined, limited length that would be subject to renewal, as opposed to an indefinite delay. In the first place, the Government has shown no basis for *any* delay (beyond the abbreviated stay we granted for the period this matter was under submission). In addition, we would take such action only if there were some expectation that circumstances would change in the future and that the delay request would not need to be renewed. In the circumstances before us, granting a defined-length

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temporary *pendente lite* stay we previously granted (*see* March 27 Order at 4-5) now EXPIRES by its own terms.

Of course, at some point, the pathways of the two proceedings may conflict, most likely if the time for both trials approaches contemporaneously. If and when such a scheduling conflict does arise, the U.S. District Court and this Board will be able to entertain the parties' suggestions as to which case should yield, if one must do so. The point is that there now exists no good reason why one must do so, and there is every reason why neither should do so.

Put another way, we stand ready to work with the parties to accommodate their interests and that of the federal district court. For now, the parties should move forward, as expeditiously as circumstances permit.

In that connection, we assume that, given the discovery production the Staff has already made at the end of April in two related civil enforcement proceedings where no criminal charges were pending,¹²⁸ it can move more quickly herein than would be normal (i.e., in less than the 30 days allotted by 10 C.F.R. § 2.336) to take the steps we relieved it of pending our disposition of its motion (*see* March 22 Tr. at 46-47). *The Staff is to advise us and Mr. Geisen by 3:00 p.m. on Thursday, May 25, 2006, of its intentions in that regard.*

We hasten to repeat (*see* note 124, above) that, in pointing to Mr. Geisen's life disruptions, we have nothing before us that would allow us to express any opinion — and we intimate none — on the merits of the Staff's case against him and on whether his challenge to the enforcement order will be successful. All we are saying is that, given the relative harm involved, he is entitled to proceed with that challenge sooner, rather than later; under the Constitution's protections, as implemented by the Commission's regulations, Mr. Geisen is entitled to challenge the Staff's allegations early on. As should be obvious from what we have written, we view the applicable principles and precedents as creating in us *a clear duty to reject delay* on that score,¹²⁹ and to see to it that the hearing before us, to which

delay, and then renewing it when presented later with the same circumstances, would be to succumb to incrementalism (*see* p. 545, above), i.e., to doing in predictable, seemingly less-offensive stages, what we could not do in one entirely unjustified leap.

Instead, we are denying the requested delay, thereby placing the burden on the Government (or on Mr. Geisen) to come back to us, if circumstances do change, to establish that a delay is then justified, or to seek particularized, limited relief to address a discrete problematic situation if one emerges.

¹²⁸ *See Dale Miller*, IA-05-053, ASLBP No. 06-846-02-EA, and *Steven Moffitt*, IA-05-054, ASLBP No. 06-847-03-EA, both presided over by Licensing Boards with the same makeup as this one (*see* note 18, above).

¹²⁹ *Cf. In re Bluewater Network*, 234 F.3d 1305, 1315 (D.C. Cir. 2000) (mandamus may lie where there is a clear duty to act and the agency has unreasonably delayed the contemplated action). Further, it may be that any decision to delay indefinitely a hearing on the merits of an immediately effective

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Mr. Geisen is entitled, proceeds as expeditiously as the complexity of the matter and the volume of the documents will allow.

We also repeat (*see* note 114, above) that the Staff has never suggested that moving forward in both forums would have any deleterious effect on the Staff's ability to present the administrative case to us. In any event, our denial today of the Government's requested delay is without prejudice to either side's right to return to us in the future — if a side can point to real, practical (as opposed to theoretical, ephemeral) damage to its position that would transpire if the proceeding moved to the next step — and to seek to delay all or a part of a subsequent stage.¹³⁰

In conclusion, we believe it important to express certain additional thoughts about the Government's representation and its presentation. As noted in Part I, above, we addressed, during a prehearing teleconference on March 22, the matter of the paucity of particularized support for the Government's motion and strongly suggested that the Government bolster its presentation and, to that end, have a key DOJ representative appear before us, a suggestion that the MOU authorizes us to make.

In light of our having made these comments, we were surprised to receive from the Government, shortly before the oral argument, a letter containing the NRC Staff's recounting of the reasons the DOJ's Mr. Ballantine is said to have provided the Staff for *not* attending the argument.¹³¹ That letter recited why Mr. Ballantine had said he was absenting himself, as follows:

The affidavits filed by DOJ in support of the Staff's efforts to seek a stay are reviewed by the Professional Responsibility Officer of the Environmental Crimes Section to ensure there are no violations of ethics rules or DOJ policies. Both the Department's United States Attorney's Manual, which governs attorney conduct internally, and the Rules of Professional Conduct applicable to the pending criminal matters, specify the categories of information a prosecutor may properly disclose about a pending criminal case. (USAM 1-7.500 & 1-7.520, Ohio Disciplinary Rule 7-107). At oral argument, the Professional Responsibility Officer's review of the prosecutor's statements, which the Environmental Crimes Section believes to be necessary, would be impossible.

Thus, Mr. Ballantine did not appear at the argument (April 11 Tr. at 5). As already observed, a number of topics arose that might have benefited from his participation (*id.* at 13, 24, 34).

order would be subject to judicial review as a final agency action. *See, e.g., Shoreham-Wading River Central School District v. NRC*, 931 F.2d 102, 105 (D.C. Cir. 1991); *Massachusetts v. NRC*, 924 F.2d 311, 321-22 (D.C. Cir. 1991).

¹³⁰ *See* note 127, above.

¹³¹ Letter from Michael Spencer, Counsel for NRC Staff, to Administrative Judges (Apr. 6, 2006).

We appreciate the need, where criminal proceedings are involved, for DOJ ethics officers to approve written materials, or to supervise out-of-court statements. But the last sentence of the letter would have us believe that Justice lawyers, whether at headquarters or in United States Attorney's offices — responsible for regularly appearing in over 100 federal courthouses around the country — cannot, because of the inability to get ethics preclearance, offer any extemporaneous analysis in response to an adjudicatory body's inquiries about a matter pending before it that is related to a pending criminal case. We do not understand that to be the fact.

In any event, we were struck by the Government's rote incantation, in its written and oral presentations, of important principles and serious concerns that have applicability and force in other contexts but simply have no bearing here.¹³² At the end of the day, the Government's sole argument was the unsupported and nonparticularized assertion that the enforcement proceeding should be delayed to protect DOJ's pending criminal prosecution.

As the Commission has admonished, however, the "Staff's mere assertion that it wishes to protect DOJ's pending criminal prosecution . . . does not, without more, justify holding our parallel administrative proceeding in abeyance." *Siemaszko*, CLI-06-12, 63 NRC at 502. Such a "mere assertion" being essentially all we were given here to counter the serious harm to Mr. Geisen, the Government's motion therefore had to be denied.

¹³² *Cf.* Fed. R. Civ. P. 11(b) (regarding the implicit certification that claims presented are, *inter alia*, warranted by existing law and have evidentiary support), and 10 C.F.R. §§ 2.304(c) and 2.314(a).

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Michael C. Farrar, Chairman
ADMINISTRATIVE JUDGE

E. Roy Hawkens*
ADMINISTRATIVE JUDGE

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

Rockville, Maryland
May 19, 2006

Copies of this Memorandum and Order were sent this date by e-mail transmission to counsel for Mr. Geisen and for the NRC Staff.

Concurring Opinion of Judge Hawkens

I concur fully in the Board's opinion. Having been a member of the *Siemaszko* Licensing Board majority whose decision granting the NRC Staff's request to hold an enforcement proceeding in abeyance was just affirmed by the Commission, I write separately to emphasize my agreement with the Board's conclusions that the facts in this case: (1) are materially different than the facts in *Siemaszko*; and (2) weigh decisively against granting the NRC Staff's request to hold the enforcement proceeding in abeyance.

In the instant case, the Board received an affidavit in support of the requested abeyance from Mr. Thomas Ballantine, who is a Department of Justice (DOJ) attorney on the trial team prosecuting Mr. Geisen. In his affidavit, Mr. Ballantine asserted, *inter alia*, that the decision in *Siemaszko* was a basis for holding this case "in abeyance until the criminal trial is finished" (Staff Motion, Attach. B, Affidavit of Thomas T. Ballantine at 2-3 (Mar. 20, 2006)). Contrary to

*Judge Hawkens' concurring opinion, which the other Board members endorse, follows.

Mr. Ballantine's assertion, *Siemaszko* is distinguishable from this case in critical respects.¹³³

Mr. Siemaszko was alleged to have deliberately provided materially incomplete and inaccurate information in condition reports while working at the Davis-Besse Nuclear Power Station in 2001. Based on his alleged misconduct, the NRC Staff issued Mr. Siemaszko an enforcement order barring him from employment in the nuclear industry for 5 years. The order was not made immediately effective. Thereafter, Mr. Siemaszko was criminally indicted, and the NRC Staff — at the behest of the DOJ attorney prosecuting the criminal case — moved to hold the enforcement proceeding in abeyance pending final disposition of the criminal case. The Board granted the NRC Staff's motion, and the Commission affirmed. *See* Licensing Board Memorandum and Order (Granting the NRC Staff's Motion To Hold this Proceeding in Abeyance) (Mar. 2, 2006) (unpublished) [hereinafter Board *Siemaszko* Order], *aff'd*, CLI-06-12, 63 NRC 495 (2006) [hereinafter Commission *Siemaszko* Order].

A pivotal difference between this case and *Siemaszko* is that Mr. Siemaszko suffered no cognizable harm as a result of the enforcement order. The enforcement order issued to Mr. Siemaszko was *not* immediately effective, and he was *not* working in the nuclear industry when the order was issued in any event.¹³⁴ Moreover, the parties in *Siemaszko* agreed that the subsequently issued criminal indictment was a superseding event that eclipsed any adverse impact the order might conceivably have had on Mr. Siemaszko's employment prospects. Thus, as a matter of fact and law, the enforcement order had *no* adverse impact on Mr. Siemaszko's employment or employment prospects in the nuclear industry. *See* Board *Siemaszko* Order at 3-4; Commission *Siemaszko* Order, 63 NRC at 504-05.

In sharp contrast, Mr. Geisen's enforcement order — *which was immediately effective* — inflicted an immediate and serious injury on his constitutionally protected property interest. *See FDIC v. Mallen*, 486 U.S. 230, 240 (1988) (an individual's employment relationship is a property right protected by the Fifth Amendment). Mr. Geisen was working in the nuclear industry when the Staff issued the enforcement order. As a matter of fact and law, the order mandated his immediate discharge and rendered him unemployable in that industry for 5 years. The severity of that injury requires no extended discussion (*see id.* at 243) (Supreme Court has "repeatedly recognized the severity of depriving someone of his . . . livelihood"), and it materially distinguishes this case from *Siemaszko*.

¹³³The NRC Staff — to its credit — refrained from advancing an argument in support of Mr. Ballantine's *Siemaszko*-related assertion.

¹³⁴When the NRC Staff issued the enforcement order to Mr. Siemaszko in April 2005, he had not been employed in the nuclear industry for over 2½ years. His former employer at the Davis-Besse Nuclear Power Station discharged him in September 2002 based on his misconduct. *See* Board *Siemaszko* Order at 4 n.4; Commission *Siemaszko* Order, 63 NRC at 504-05.

Additionally, unlike *Siemaszko*, this record does not compel the conclusion that the subsequently issued criminal indictment was a superseding event that eclipsed the injury inflicted by the enforcement order. As mentioned above, Mr. Geisen's enforcement order commanded his immediate discharge from his job in the nuclear industry. Nothing in this record suggests that, absent the order, the subsequently issued criminal indictment would have resulted in Mr. Geisen's discharge. Rather, the record supports the opposite conclusion.

In particular, uncontested record evidence indicates that Mr. Geisen was a valued employee, and that his employer would not have discharged him but for the order that, as a matter of law, rendered him unqualified to continue working in the nuclear industry. *See* Geisen Opposition, Attach. B, Letter from Lori J. Armstrong, Director Nuclear Engineering, Dominion Energy Kewaunee, Inc., to David Geisen (Feb. 16, 2006). Notably, the employer wished Mr. Geisen "the best in resolving the pending legal matters," and it invited him to "contact [Dominion Energy Kewaunee, Inc.] to discuss the possibility of future re-employment" once he regained the legal status necessary to work there again (*ibid.*). Thus, on this record, we cannot conclude that the criminal indictment supplanted the serious and continuing injury caused by the enforcement order.

Finally, I find it significant that the NRC Staff — in its brief urging the Commission not to disturb the Board's *Siemaszko* Order — appears to recognize that the situation in *Siemaszko* is materially different than the present situation. The NRC Staff said (NRC Staff's Answer to Petition for Review of the Board's March 2, 2006 Order To Hold the Proceeding in Abeyance and Accompanying Brief at 4 n.4 (Mar. 21, 2006)):

Since the Order against Mr. Siemaszko is not immediately effective, the instant case is distinguishable from situations in which a licensee is subject to an immediately effective suspension order. In those circumstances, a licensee's due process interest in a prompt hearing may well be threatened by a stay, and thus the licensee would have demonstrated irreparable impact

The Staff's depiction of an entity who has been injured by an "immediately effective suspension order" describes precisely the situation of Mr. Geisen, whose "due process interest" will suffer "irreparable" harm absent an expedited enforcement proceeding (*ibid.*). As the Staff correctly acknowledged, such a situation — i.e., Mr. Geisen's situation — is "distinguishable" from *Siemaszko* (*ibid.*).

In this case, moreover, there is no serious question that the facts weigh decisively against granting the NRC Staff's request to hold the enforcement proceeding in abeyance. The record conclusively shows that the potential harm to Mr. Geisen from holding the enforcement proceeding in abeyance far outweighs the potential harm to DOJ (and therefore to the public) from going forward.

As the Board's opinion explains, the cumulative weight of the following factors weighs heavily in favor of going forward with the enforcement proceeding: (1) the serious and continuing harm to Mr. Geisen's constitutionally protected property interest caused by the immediately effective enforcement order; (2) the fact that the NRC Staff seeks an open-ended delay of indeterminate length;¹³⁵ and (3) the fact that Mr. Geisen timely asserted his right to challenge the enforcement order.

In light of the above factors, it was incumbent on DOJ — if it wished to hold the enforcement proceeding in abeyance — to provide fact-specific reasons demonstrating an “overriding public interest for the delay” (Revisions to Procedures to Issue Orders: Challenges to Orders That Are Made Immediately Effective, 57 Fed. Reg. 20,194, 20,197 (May 12, 1992)). Mr. Ballantine's perfunctory affidavit fell far short of making the “particularized showing” that was needed in this case to delay the enforcement proceeding (*Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 60 (1993)).¹³⁶

In reviewing Mr. Ballantine's affidavit, this Board was mindful of the Commission's “long-established policy — memorialized in a formal Memorandum of Understanding — of deferring to DOJ when it seeks a delay in our enforcement proceedings pending the conclusion of DOJ's own criminal investigations or proceedings” (Commission *Siemaszko* Order, 63 NRC at 504). To say that we will not lightly second-guess DOJ's views, however, is not to say that we will blindly accept as dispositive DOJ's hypothetical and nonparticularized assertions. As the Commission stated in *Siemaszko*, “the weight to be given [to a] reason for seeking an abeyance turns on the quality of the *factual record* — i.e., DOJ's . . . affidavits supporting th[e] . . . delay[.]” (*id.* at 503). Here, even according Mr. Ballantine's affidavit the full measure of deference it is owed, the reasons he proffered in support of an indeterminate delay lack factual applicability to the circumstances of this case and, accordingly, are entitled to minimal weight.¹³⁷

¹³⁵ As the Commission indicated in *Siemaszko*, a request to hold an enforcement proceeding in abeyance for an indeterminate length of time is extraordinary and is “rarely” granted (Commission *Siemaszko* Order, 63 NRC at 500).

¹³⁶ As explained in the Board's opinion, the factor regarding the extent of the risk that Mr. Geisen may have suffered an erroneous deprivation has no significant impact on the overall balance here.

¹³⁷ The Memorandum of Understanding between the NRC and DOJ states that the DOJ attorney will provide “appropriate [supporting] affidavits or testimony as requested by the presiding officer” (53 Fed. Reg. 50,317, 50,319 (Dec. 14, 1988)). Here, the theoretical reasons in Mr. Ballantine's affidavit that purported to support delay were simply inadequate when measured against the weighty countervailing reasons militating against delay. This Board gave Mr. Ballantine the opportunity to cure this deficiency, encouraging him to attend oral argument to clarify and particularize the assertions in his affidavit. See Licensing Board Memorandum and Order Summarizing Conference Call at 5 (Mar. 27, 2006) (unpublished) (Board “strongly urged that [Mr. Ballantine] be present [at oral argument] . . . to provide detailed and case-specific reasons” for the requested delay); accord March 22 Tr. at 29-30, 51. Mr. Ballantine declined our invitation. See April 11 Tr. at 5-6.

The NRC Staff — hampered by an inadequate affidavit from DOJ — failed to satisfy its burden of showing “good cause” (10 C.F.R. § 2.202(c)(2)(ii)) in the form of “an overriding government interest” (*Oncology*, CLI-93-17, 38 NRC at 60) for delaying the enforcement proceeding.

In these circumstances, were we to grant the Staff’s motion to hold the enforcement proceeding in abeyance for an indeterminate length of time, we would be acting in patent derogation of Mr. Geisen’s “due process rights” (10 C.F.R. § 2.202(c)(2)(ii)). On this record, we have a clear regulatory duty — as well as a constitutional obligation — to conduct Mr. Geisen’s enforcement proceeding expeditiously. I therefore concur in the Board’s decision denying the NRC Staff’s request to hold the enforcement proceeding in abeyance.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alex S. Karlin, Chairman
Dr. Anthony J. Baratta
Lester S. Rubenstein

In the Matter of

Docket No. 50-271-OLA
(ASLBP No. 04-832-02-OLA)

ENTERGY NUCLEAR VERMONT
YANKEE, LLC, and ENTERGY
NUCLEAR OPERATIONS, INC.
(Vermont Yankee Nuclear Power
Station)

May 25, 2006

RULES OF PRACTICE: CONTENTIONS (ADDITIONAL)

Three regulations govern the admissibility of additional contentions after an adjudicatory hearing has commenced. The first, 10 C.F.R. § 2.309(f)(2), deals with the admission of timely contentions based on new information. The second, 10 C.F.R. § 2.309(c)(1), deals with the admission of nontimely contentions. The third, 10 C.F.R. § 2.309(f)(1), establishes six basic criteria that all contentions must meet.

RULES OF PRACTICE: CONTENTIONS (TIMELY/NEW INFORMATION)

If new and materially different information becomes available after the commencement of an adjudicatory proceeding and if a new non-NEPA contention is submitted in a timely fashion based on that new information, then such a contention is considered “timely” under 10 C.F.R. § 2.309(f)(2)(iii) and, upon

leave of the presiding officer, may be admitted if it also satisfies the general contention admissibility standards contained in 10 C.F.R. § 2.309(f)(1).

RULES OF PRACTICE: CONTENTIONS (TIMELY/NEW INFORMATION)

If new and materially different information becomes available after the commencement of an adjudicatory proceeding and if a new non-NEPA contention is submitted in a timely fashion based on that new information, then such a contention is considered “timely” under 10 C.F.R. § 2.309(f)(2)(iii) and, upon leave of the presiding officer, may be admitted, without being subject to the eight additional requirements applicable to “nontimely” contentions under 10 C.F.R. § 2.309(c)(1).

RULES OF PRACTICE: CONTENTIONS (NONTIMELY FILING)

If a proposed new contention is not timely, it may be admitted if the petitioner shows a favorable balance among the eight factors governing nontimely filing that are found in 10 C.F.R. § 2.309(c)(1). Each of the eight factors needs to be considered only to the extent that it applies to the particular nontimely filing.

RULES OF PRACTICE: ADMISSIBILITY OF CONTENTIONS (GENERIC ISSUES)

The six basic contention admissibility standards contained in 10 C.F.R. § 2.309(f)(1)(i)-(vi) must be met by all contentions, whether they are filed at the outset of the proceeding, are filed in a timely fashion when material new information arises, or are untimely filings.

RULES OF PRACTICE: CONTENTIONS (NEW INFORMATION)

When new and material information is revealed in a piecemeal fashion, the foundation for a new contention may not be reasonably apparent until the later pieces fall into place. In such a case the timeliness of a new contention based thereon depends on a determination about when, as a cumulative matter, the separate pieces of the information “puzzle” were sufficiently in place to make the particular concerns expressed in the contention reasonably apparent.

RULES OF PRACTICE: FILING REQUIREMENTS (INFORMAL PROCEEDINGS)

While pleadings submitted by a petitioner acting *pro se* are not always expected to meet the same standards as pleadings drafted by lawyers, late filing of documents is not condoned.

**MEMORANDUM AND ORDER
(Ruling on Admissibility of Three Additional Contentions)**

Before the Board is a request by the New England Coalition (NEC) for leave to file three new contentions.¹ For the reasons stated below, the Board finds that NEC's new contentions are inadmissible under 10 C.F.R. § 2.309(f) and (c) and denies the request.

I. PROCEDURAL POSTURE

In September 2003, Entergy Nuclear Vermont Yankee, L.L.C., and Entergy Nuclear Operations, Inc. (collectively, Entergy), applied to the U.S. Nuclear Regulatory Commission (NRC) for authorization to increase the maximum power level of Entergy's Vermont Yankee Nuclear Power Station in Windham County, Vermont, from 1593 megawatts thermal (MWt) to 1912 MWt. This is referred to as an extended power uprate or EPU. On August 30, 2004, NEC challenged the proposed EPU by filing a request for a hearing that included several proposed contentions.² On November 22, 2004, this Board found that NEC had standing to participate in this proceeding and admitted two of its original contentions. LBP-04-28, 60 NRC 548, 554, 568-77 (2004).

The NRC published its Draft Safety Evaluation Report (DSER) for the EPU application on November 2, 2005.³ Subsequently, the Subcommittee on Power Uprates of the Advisory Committee on Reactor Safeguards (ACRS) held 4 days of meetings to receive input from the public, the Applicant, and the NRC Staff on the Vermont Yankee EPU application. The subcommittee met in Brattleboro,

¹New England Coalition's Request for Leave To File New Contentions (Apr. 6, 2006) (NEC Request).

²New England Coalition's Request for Hearing, Demonstration of Standing, Discussion of Scope of Proceeding and Contentions (Aug. 30, 2004).

³Safety Evaluation by the Office of Nuclear Reactor Regulation Related to Amendment No. ___ to Facility Operating License No. DPR-28, Draft, Revision 1 (Nov. 2, 2005), ADAMS Accession No. ML053010167.

Vermont, on November 15 and 16, 2005,⁴ and in Rockville, Maryland, on November 29 and 30, 2005.⁵ The full committee of the ACRS addressed the EPU application at its meeting on December 7, 2005. NEC testified at these hearings.⁶ On January 4, 2006, the ACRS sent a letter to the Commission recommending approval of the EPU application while expressing certain technical concerns.⁷ The NRC published its Final Safety Evaluation Report (FSER) on March 2, 2006,⁸ and it was delivered to NEC on March 6, 2006. Tr. at 823.

On April 6, 2006, NEC submitted a request for leave to file three new contentions that it alleges are based on the ACRS meetings held in November and December, information referenced by Entergy and NRC Staff at those meetings, the ACRS letter of January 4, 2006, and the FSER. NEC Request at 2. Entergy and NRC Staff responded on May 1, 2006, opposing admission of the new contentions,⁹ and NEC filed its reply on May 8, 2006.¹⁰

II. CONTENTION ADMISSIBILITY STANDARDS

Three regulations address the admissibility of additional contentions once an adjudicatory proceeding has been initiated. These are (a) 10 C.F.R. § 2.309(f)(2), which deals with the admission of new and timely contentions; (b) 10 C.F.R. § 2.309(c), which deals with the admission of nontimely contentions; and

⁴ See Meeting Transcript, Advisory Committee on Reactor Safeguards, Subcommittee on Power Uprates (Nov. 15, 2005) (ACRS Transcript 11/15/05); Meeting Transcript, Advisory Committee on Reactor Safeguards, Subcommittee on Power Uprates (Nov. 16, 2005) (ACRS Transcript 11/16/05).

⁵ See Meeting Transcript, Advisory Committee on Reactor Safeguards, Subcommittee on Power Uprates (Nov. 29, 2005); Meeting Transcript, Advisory Committee on Reactor Safeguards, Subcommittee on Power Uprates (Nov. 30, 2005) (ACRS Transcript 11/30/05).

⁶ ACRS Transcript 11/15/05 at 201-15; ACRS Transcript 11/16/05 at 276-88; ACRS Transcript 11/30/05 at 293-98, 308-20; Meeting Transcript, Advisory Committee on Reactor Safeguards (Dec. 7, 2005) at 99-102.

⁷ Letter from Graham B. Wallis, Chairman, ACRS, to Nils J. Diaz, Chairman, NRC (Jan. 4, 2006), ADAMS Accession No. ML060090125.

⁸ Safety Evaluation by the Office of Nuclear Reactor Regulation Related to Amendment No. 229 to Facility Operating License No. DPR-28 (Mar. 2, 2006), ADAMS Accession No. ML060050028.

⁹ Entergy's Response to New England Coalition's Request for Leave To File New Contentions (May 1, 2006) (Entergy Response); NRC Staff's Answer to New England Coalition's Request for Leave To File New Contentions (May 1, 2006) (Staff Answer).

¹⁰ New England Coalition's Reply to NRC Staff and Entergy's Responses to New England Coalition's Request for Leave To File New Contentions (May 8, 2006) (NEC Reply).

(c) 10 C.F.R. § 2.309(f)(1), which establishes the basic criteria that all contentions must meet in order to be admissible.¹¹

A. Timely New Contentions Under 10 C.F.R. § 2.309(f)(2)

As this Board has previously stated, the first step is to determine if the additional contention is “timely” and otherwise meets the requirements of 10 C.F.R. § 2.309(f)(2). LBP-05-32, 62 NRC 813, 819 (2005). This regulation, promulgated in 2004, provides that new contentions (that are not based on NEPA¹²) may be filed after the initial filing only with leave of the presiding officer upon a showing that:

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
- (iii) The amended or new contention has been submitted in a *timely* fashion based on the availability of the subsequent information.

10 C.F.R. § 2.309(f)(2)(i)-(iii) (emphasis added). In short, if new and materially different information becomes available during the processing of the application, and a petitioner promptly files a new contention based on this new information, the contention is admissible (if it also satisfies the general contention admissibility standards contained in 10 C.F.R. § 2.309(f)(1)).

Section 2.309(f)(2) is logical and appropriate because NRC adjudicatory proceedings are initiated at an early stage in the administrative process, when the application has been docketed but long before the NRC and the applicant have

¹¹ As the Commission explained, “Late-filed requests for hearing/petitions are governed by the criteria set forth in § 2.309(c) (formerly § 2.714(a)(1)(i) through (v)).” Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004). In contrast, “[p]aragraph [309](f)(2) addresses the standards for amending existing contentions, or submitting new contentions based upon documents or other information not available at the time that the original request for hearing/petition to intervene was required to be filed.” *Id.*

¹² Section 2.309(f)(2) of 10 C.F.R. sets a less stringent rule for “issues arising under the National Environmental Policy Act,” specifying that “the petitioner . . . may . . . file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant’s documents.” New NEPA contentions are not subject to the three conditions specified in (f)(2)(i)-(iii). “[N]ew or amended environmental contentions may be admitted if the petitioner shows that the new or amended contention is based on data or conclusions in the NRC’s environmental documents that differ significantly from the data or conclusions in the applicant’s documents. . . . For all other new or amended contentions the rule makes clear that the criteria in § 2.309(f)(2)(i) through (iii) must be satisfied for admission.” 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004) (emphasis added).

finished publishing the relevant documents and information, e.g., before the NRC Staff has finished asking questions (requests for additional information (RAIs)), substantively evaluated the application, issued its DSER or FSER, and issued its environmental documents (environmental impact statement or environmental assessment). New (post-docketing) information also often arises when, as happened here, the applicant amends its application many times *after* NRC issues its initial notice of opportunity to request a hearing.¹³ Also, as in this case, the ACRS may generate or reveal additional post-docketing information. *See supra* text accompanying notes 4-7.

Pursuant to 10 C.F.R. § 2.332(d), the Board's adjudicatory hearings are generally postponed for many months or even years, while we wait for the NRC Staff to issue the FSER and the Final Environmental Impact Statement (FEIS). Thus, 10 C.F.R. § 2.309(f)(2) accommodates the fact that substantially new and different information typically arises *after* the docketing of an application and the publication of the notice of opportunity for hearing by allowing a petitioner to assert new contentions based on such information, provided that it is truly new and materially different and provided that the petitioner acts promptly.¹⁴

This result is consistent with *Union of Concerned Scientists v. NRC*, 735 F.2d 1437 (D.C. Cir. 1984) (*UCS 1*) and *Union of Concerned Scientists v. NRC*, 920 F.2d 50 (D.C. Cir. 1990) (*UCS 2*). *UCS 1* held that section 189(a) of the Atomic Energy Act prohibits NRC from barring all parties from ever raising an *admittedly material issue* in a licensing proceeding. 735 F.2d at 1443. *UCS 2* ruled that *UCS 1* did not prevent NRC from excluding a later intervenor if "another party has fully presented a material issue identical to the one the excluded party seeks to raise," 920 F.2d at 55, or if the later intervenor's proposed new contention is based on a later filed SER or EIS where the "issues . . . were apparent at the time of the application," e.g., the original docketing and *Federal Register* notice.

¹³In LBP-04-33, 60 NRC 749, 751 (2004), NEC moved for dismissal of this case alleging that Entergy had filed twenty supplements to its application, causing such a "large transformation" in Entergy's original EPU application that due process required that NRC issue a new notice of opportunity for a hearing. We noted that any such "newly available material information" would entitle NEC to file a new contention based thereon, and therefore denied the motion. *Id.* at 754.

¹⁴If a contention satisfies the timeliness requirement of 10 C.F.R. § 2.309(f)(2)(iii), then, by definition, it is *not* subject to 10 C.F.R. § 2.309(c) which specifically applies to "nontimely filings." This both follows the plain language of the regulations and is eminently sensible because "[i]t is neither logical nor sensible to impose only eight conditions [10 C.F.R. § 2.309(c)(1)(i)-(viii)] on the admissibility of a contention based on old information and where the proponent has, through his own inadvertence, forgotten to raise it, and yet impose even more hurdles (three [10 C.F.R. § 2.309(f)(2)(i)-(iii)] plus eight) on a contention based on new information where the proponent is blameless and prompt." LBP-05-32, 62 NRC 813, 821 n.21 (2005). We reject the suggestion that the three (f)(2) factors merely elaborate on the good cause factor of section 2.309(c)(1)(i) (and therefore are not additive) because there are certainly situations where good cause may have nothing to do with the (f)(2) factors (e.g., where the good cause is based on a medical emergency of the petitioner).

Id. (emphasis added). In such cases, *UCS 2* noted that the NRC certainly has the authority to adopt a pleading schedule designed to expedite its proceedings and to balance the admission of the new party or contention against the (then five) nontimely filing factors. But the D.C. Circuit strongly indicated that any application of the NRC rules “to prevent all parties from raising material issues which could not be raised prior to the release of the environmental reports” would be a misapplication subject to judicial review. *Id.* at 56. Our reading of 10 C.F.R. § 2.309(f)(2) — that if, after the original 60 days *Federal Register* notice period of 10 C.F.R. § 2.309(b) has expired, previously unavailable and material information, which raises for the first time a material new contention, becomes available, and if an existing party asserts that new and material contention in a timely fashion, and the contention otherwise satisfies the requirements of 10 C.F.R. § 2.309(f)(1), then that contention is to be admitted, without being required to jump through the eight additional hoops for “nontimely” contentions under 10 C.F.R. § 2.309(c) — is consistent with *UCS 1* and *UCS 2*.

We note that the regulations do not set a specific number of days whereby we can measure or determine whether a contention is “timely” as required by 10 C.F.R. § 2.309(f)(2)(iii). The “timing” provision of section 2.309(b) cannot apply, for this provision would make all contentions filed after the initial notice period “nontimely,” and a contention could *never* meet the requirements of 10 C.F.R. § 2.309(f)(2)(iii). Alternatively, given the significant effort involved in (a) identifying new information, (b) assembling the required expertise, and then (c) drafting a contention that satisfies 10 C.F.R. § 2.309(f)(1), it would be inappropriate to impose the very short 10-day rule of 10 C.F.R. § 2.323(a) on the filing of new contentions. Several boards have established a 30-day rule for new contentions.¹⁵ This Board has previously noted that new contentions must be filed “very promptly” after the receipt of the relevant new information, but has declined to set a general 30-day rule. *Tr.* at 698. However, we did set a specific 30-day rule for new contentions based on new and different information in the FSER.¹⁶

B. Nontimely Additional Contentions Under 10 C.F.R. § 2.309(c)

If a contention is not timely under 10 C.F.R. § 2.309(f)(2)(iii), then we turn to 10 C.F.R. § 2.309(c), which deals with “nontimely filings,” and evaluate the

¹⁵ See, e.g., *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-4, 59 NRC 31, 46 (2004); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-03-21, 58 NRC 338, 346-47 (2003).

¹⁶ LBP-06-3, 63 NRC 85, 97 (2006) (“Once the Final SER is issued and delivered to the parties, they shall have ten (10) days within which to move for any adjustment to the schedule herein and thirty (30) days within which to move for leave to file any new or amended contentions”).

contention according to eight potentially applicable factors. Section 2.309(c) states that an untimely contention may be admissible if the petitioner shows a favorable balance among the following factors:

- (i) Good cause, if any, for the failure to file on time;
- (ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;
- (iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding;
- (iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest;
- (v) The availability of other means by which the requestor's/petitioner's interest will be protected;
- (vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties;
- (vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and
- (viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

10 C.F.R. § 2.309(c)(1)(i)-(viii). The first factor — whether good cause exists for failure to file on time — is given the most weight.¹⁷ The eight factors need to be considered only “to the extent that they apply to the particular nontimely filing.” 10 C.F.R. § 2.309(c)(1).

C. Basic Contention Admissibility Requirements of 10 C.F.R. § 2.309(f)(1)

The third step in analyzing whether an additional contention is admissible is to determine whether it satisfies the six basic contention admissibility standards contained in 10 C.F.R. § 2.309(f)(1)(i)-(vi).¹⁸ These standards must be met by all contentions, whether they are filed at the outset of the proceeding, are filed in

¹⁷ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 564 (2005); *State of New Jersey* (Department of Law and Public Safety), CLI-93-25, 38 NRC 289, 296 (1993).

¹⁸ Under this standard, petitioners seeking to have a contention admitted must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;

(Continued)

a timely fashion when material new information arises, or are untimely filings. We have reviewed and discussed the six basic criteria in previous rulings herein. LBP-04-28, 60 NRC 548, 554-58 (2004).

III. NEC NEW CONTENTION 5

The first of NEC's newly proffered contentions, which we will refer to as Contention 5 to distinguish it from other contentions that have been submitted in this proceeding, reads as follows:

ENVY has failed to provide correctly calculated offsite and control room radiological consequences in the event of a design basis accident ("DBA") under extended power uprate ("EPU") conditions; using both questionable models and applied erroneous assumptions. NRC staff has, through incorporation in the SER, erroneously accepted and approved the ENVY methodology of predicting dose releases under the EPU conditions. Thus ENVY and NRC staff have failed to provide adequate assurance that all Vermont Yankee DBAs while operating under uprate conditions will meet 10 CFR 50.67, General Design Criteria 19, and SRP 15.01 radiological dose requirements. Since therefore the public will be at risk of exposure to radioactivity releases that would exceed the allowable limits, ENVY should not be allowed to operate Vermont Yankee Nuclear Power Station under the proposed EPU.

NEC Request at 5.

A. Position of the Parties

NEC takes the position that all three of its proposed new contentions satisfy all of the requirements of 10 C.F.R. §§ 2.309(f)(2), 2.309(c), and 2.309(f)(1) and that, to the extent the Board disagrees, it should excuse NEC for its "naiveté as a *pro se* intervenor" and accept the contentions anyway. NEC Request at 12. With regard to timeliness, although NEC admits that it raised the issues in these three new contentions with the ACRS and NRC Staff in November and December 2005, NEC Request at 13, and has been telling the Board that it planned to file

(v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing . . . ; and

(vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes . . . , or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reason for the petitioner's belief.

these three contentions ever since our conference call of January 24, 2006,¹⁹ NEC argues that they are timely because it was only recently “able to apprehend new information and information that is substantially different than that previously available.” NEC Request at 2-3. NEC says that it filed the new contentions “as soon as possible following [its] first opportunity to cumulatively apprehend clear and unambiguous information about the erroneous assumptions and conclusions.” *Id.* at 11. However, at least with regard to NEC Contention 5, NEC admits that “[t]he full depth and scope of non-conservative conclusions . . . was, to [NEC’s] knowledge, first publicly revealed in full in NRC staff and licensee presentations [to the ACRS] on November 29, 2005 and December 8, 2005.” *Id.* at 13. NEC repeated that it discovered this “clear and unambiguous information regarding the extent and depth of error” at these ACRS hearings.²⁰ *Id.* at 14. Despite these admissions, NEC “avers that the final SER is the seminal document on the issues raised” and therefore claims that the new contentions were filed within the 30-day schedule that the Board set for new contentions based on that document. *Id.* at 15. For these reasons, NEC argues that Contention 5 and the remaining contentions are timely under 10 C.F.R. § 2.309(f)(2).

For some of the same reasons, NEC argues that Contention 5 and the remaining contentions meet the “good cause” requirement of 10 C.F.R. § 2.309(c) for nontimely filings. NEC submits that Contention 5 and the remaining contentions were filed “as soon as possible” after NEC’s “first opportunity to cumulatively apprehend clear and unambiguous information” about the three topics, and that this opportunity was created by Staff and Licensee presentations before the ACRS and by the FSER. *Id.* at 11. More specifically, NEC says that its concerns regarding the subject matter of Contention 5 became apparent during the Staff and Licensee presentations before the ACRS on November 29, 2005, and December 8, 2005. *Id.* at 13. NEC requests that the Board, in determining how much time to allow between the discovery of new information and the filing of a contention based on that information, take into account the complexity of the information, the fact that NEC is a citizen intervenor, and the fact that NEC has no remaining venues in which to seek relief.²¹

¹⁹The transcript of this call indicates that NEC was working on these contentions in January 2006, and originally intended to submit them at that time. NEC’s *pro se* representative stated that “[NEC] has in the works three late-filed contentions and we anticipate completing them and submitting them by the end of the week.” Tr. at 733.

²⁰Indeed, as the Staff points out, whatever “erroneous assumptions and questionable models” NEC alleges exist in the calculation of the radiological consequences of a design basis accident under uprate conditions, NEC Request at 13, seem to have existed since the EPU application was submitted, or, at the latest, when Entergy submitted its alternative source term amendment application on March 29, 2005. Staff Answer at 15 n.28.

²¹*Id.* at 14. NEC also refers to “reliance on a plain reading of the Board’s articulations,” but it is not at all clear how the statements NEC refers to in this context apply to Contention 5.

NEC also argues that Contention 5 meets the general contention admissibility requirements of 10 C.F.R. § 2.309(f)(1), citing an extensive declaration by their expert witness in order to satisfy the basis requirement of section 2.309(f)(1)(ii). *Id.* at 16-18.

Entergy responds by claiming that NEC's new contentions "were neither prompted by, nor based on, new information in the . . . SER," but rather were based on "information that NEC admits it had long before the SER was issued." Entergy Response at 3. Furthermore, Entergy argues, the new contentions would have been late even if they had been based on new information in the SER, as they were filed more than 30 days after the SER was delivered and therefore did not comply with the deadline previously established by the Board. *Id.* at 5. In the case of Contention 5, Entergy also claims that the methodology NEC attacks was first presented to the NRC in July 2003 as part of Technical Specification Proposed Change No. 262 regarding the use of an Alternative Source Term (AST). *Id.* at 11. According to Entergy, NEC "should have challenged [the methodology] in the AST license amendment proceeding, or at the very latest in its August 2004 Petition." *Id.* at 12.

Because Contention 5 and the remaining contentions are untimely, Entergy argues, the section 2.309(c) eight-factor balancing test for nontimely contentions applies. *Id.* at 19-20. Entergy claims that NEC has failed to demonstrate good cause for nontimely filing — it "has provided no credible explanation for its lateness in submitting the proposed new contentions, and has totally failed to explain why it took at least four months for it to request their admission; in fact, why it did not raise all of them with its Petition in August 2004." *Id.* at 20.

Finally, Entergy argues that Contention 5 fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) in that it fails to identify the sections of the application that NEC wishes to dispute. *Id.* at 25. Indeed, Entergy claims that NEC could not have done so because the erroneous assumptions NEC identifies do not appear in the application. *Id.* at 25-26. Therefore, says Entergy, the contention "fails because its claims do not controvert the EPU Application." *Id.* at 26.

The NRC Staff argues that NEC's proposed new contentions are required to comply with the requirements of 10 C.F.R. §§ 2.309(f)(2) and 2.309(c), and that the contentions must be rejected as untimely because "each . . . could have been filed long before April 2006." Staff Answer at 7. The Staff claims that NEC has failed "to identify precisely what 'new' and 'different' information was contained in any of the voluminous material it vaguely cites," *id.* at 8, and points out that NEC itself admits that it was aware of the relevant information — at the latest — following the November ACRS meetings. *Id.* Therefore, the Staff argues, "[a]bsolutely no reason has been provided to show why NEC could not have filed its new contentions at that time." *Id.* Furthermore, the Staff claims, NEC has shown neither good cause for nontimely filing nor that the balance of

the nontimely filing criteria in 10 C.F.R. § 2.309(c) supports the admission of the new contentions. *Id.* at 7.

The Staff's analysis under the contention admissibility standards of section 2.309(f)(1) begins with the position that Contention 5 is not "a specific statement of the issue of law or fact to be raised or controverted," as required by section 2.309(f)(1)(i), and that NEC's presentation of the basis for Contention 5 is unclear. *Id.* at 13-15. Furthermore, the Staff argues that "the Applicant's analyses of the radiological consequences of design basis accidents . . . were approved in a separate license amendment implementing an alternative source term (AST) for Vermont Yankee," and that Contention 5 therefore falls outside the scope of the proceeding in violation of 10 C.F.R. § 2.309(f)(1)(iii) and (iv). *Id.* at 15. Finally, Staff asserts that NEC's presentation of Contention 5 is "confusing and fail[s] to properly identify the specific deficiencies in the Applicant's documents which NEC now seeks to litigate." *Id.* at 16.

B. Analysis of Admissibility as a Timely New Contention Under Section 2.309(f)(2)

The Board concludes that Contention 5 is based on information well known to NEC for approximately 5 months prior to its filing on April 6, 2006, and therefore was not timely under 10 C.F.R. § 2.309(f)(2)(iii). NEC itself concedes that the information on which the contention was based became available either prior to or during ACRS meetings in November and December 2005. NEC Request at 13. As Entergy and NRC Staff point out,²² NEC testified at these hearings and raised the very issues it is now propounding in Contention 5.²³

We reject NEC's attempt to stretch the timeliness clock by arguing that it was only recently able "to cumulatively apprehend" the problem and "[to] discover clear and unambiguous information regarding the extent and depth of error." NEC Request at 11, 14. Certainly, there are some cases where new and material information is revealed in a piecemeal fashion, and where the foundation for the contention is not reasonably available until the later pieces fall into place. In such cases the admissibility decision "turns on a . . . determination about when, as a cumulative matter, the separate pieces of the . . . information 'puzzle' were sufficiently in place to make the particular concerns . . . reasonably apparent." *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-15, 44 NRC 8, 26 (1996). However, based on the record in this case, it is clear to us that the information "puzzle" for Contention 5 was reasonably complete at the

²² Entergy Response at 4-5; Staff Answer at 8.

²³ See ACRS Transcript 11/16/05 at 285-88; ACRS Transcript 11/30/05 at 293-95 (presenting testimony based on the DSER).

latest by November and December of 2005 (when NEC first began sounding the alarm at the ACRS meeting). Accordingly, the time available for NEC to file new contentions on this subject matter should be measured from December 2005.

We also reject the suggestion that our ruling of January 17, 2006, which specified that “[o]nce the Final SER is issued and delivered to the parties, they shall have . . . thirty (30) days within which to move for leave to file any new or amended contentions,” LBP-06-3, 63 NRC 85, 97 (2006), *relaxed* the deadline for *any and all* new contentions until 30 days after the FSER. Our 30-day deadline plainly applied only to new contentions based on new and materially different information in the FSER. In this case, NEC failed to show that any of the material information that it relies upon for Contention 5 first became available in the March 2006 FSER. Therefore, NEC fails to satisfy the requirements of section 2.309(f)(2)(i)-(iii) or of the January 17, 2006 order.²⁴

C. Analysis of Admissibility as a Nontimely Contention Under Section 2.309(c)

Having concluded that Contention 5 is not “timely” under section 2.309(f)(2), we now turn to the eight factors related to “nontimely filings,” to see if the contention may, nevertheless, be admitted under 10 C.F.R. § 2.309(c).

We conclude that NEC fails at the first, and most important, balancing factor — a showing of “good cause, if any, for failure to file on time.” 10 C.F.R. § 2.309(c)(1)(i). NEC’s argument that the FSER was NEC’s “first opportunity to cumulatively apprehend” the problem is no more effective here, in establishing good cause for nontimeliness, than it was in establishing timeliness. *See* discussion *supra* p. 579. Nor does the “unusual volume and complexity of the information to be sifted” constitute a good cause excuse, because, by its own admission, NEC recognized the alleged problem as early as November. NEC Request at 13. NEC’s “eureka” moment occurred in November 2005. But it took the next 5 months for NEC to find the time and resources to sit down to draft and file the contention that it knew it had, and that it had repeatedly announced that it intended to file. Given our scheduling orders in this case, NEC was aware that, as the issuance of the FSER loomed, the dates for filing of written testimony and the evidentiary hearing would soon follow. We find it hard to accept that NEC’s other work should take higher priority than the formulation and filing of new contentions, or that the general workload of its representative should be allowed to delay the relatively imminent hearing herein. Nor do we accept that

²⁴Given NEC’s multimonth delay in filing its new contentions, we find no need to quibble about whether NEC missed the 30-day deadline by 1 day, Entergy Response at 5, Staff Answer at 11-12, or whether this 1-day delay is excusable, either by the regulations or by NEC’s “naiveté as a *pro se* intervenor.” NEC Request at 12.

“naiveté as a *pro se* intervenor,” NEC Request at 12, has anything to do with, or excuses, these late contentions. *Pro se* or not, NEC is an experienced player in NRC adjudicatory hearings. And while “naiveté” may excuse pleadings that are inartfully drawn,²⁵ we do not see how it applies to simple things like the need for timeliness and prompt action. Our review of the remaining seven factors of 10 C.F.R. § 2.309(c)(1)(ii)-(viii), to the extent they are applicable at all, does not tip the balance in favor of admitting NEC’s nontimely Contention 5. Certainly, by our prior admission of NEC to this proceeding, we have already ruled that NEC has a right to be made a party, has interests in the proceeding, and could be affected by the proceeding, as per 10 C.F.R. § 2.309(c)(1)(ii), (iii) and (iv), respectively.²⁶ But these factors do not seem particularly “applicable” given that they focus on the status of the requestor/petitioner seeking admission to a proceeding (e.g., standing, nature of requestor/petitioner’s affected interests) rather than on new contentions submitted by admitted parties. Similarly, we conclude that NEC has satisfied section 2.309(c)(1)(vi) by showing that its interests are not adequately represented by the other parties. NEC Request at 9-10.

Among the remaining factors, NEC’s greatest stumbling block is 10 C.F.R. § 2.309(c)(1)(vii) — the fact that admission of this nontimely contention at this late date will substantially broaden and delay this proceeding. If NEC Contention 5 were admitted, the Board either would be forced to significantly delay the litigation and hearing on the admitted contentions, or would need to set a second, later schedule for the litigation of Contention 5.²⁷ NEC’s suggestion that the new contentions could be admitted without substantially disrupting the existing schedule, NEC Request at 10, is plainly wrong.

On balance, the Board concludes that it will not admit NEC Contention 5 under 10 C.F.R. § 2.309(c) because NEC has shown no good cause for waiting, at this relatively late stage, several months to file this contention and because its admission would significantly delay the proceeding. NEC recognized the key issue as early as November 2005 and knew or should have known that filing this proposed contention on April 6, 2006, would disrupt and delay the proceeding. In these circumstances, we decline to excuse the delay or to admit this nontimely filing.

²⁵ *Public Service Electric and Gas Co.* (Salem Nuclear Generating Station, Units 1 and 2), ALAB-136, 6 AEC 487, 489 (1973) (“[W]e do not think that a *pro se* petitioner should be held to those standards of clarity and precision to which a lawyer might reasonably be expected to adhere”).

²⁶ See LBP-04-28, 60 NRC 548, 553-54 (2004) (ruling that NEC has standing in this proceeding); LBP-05-32, 62 NRC 813, 822 (2005) (admitting a new contention submitted by NEC).

²⁷ Assuming *arguendo* that NEC Contention 5 would be heard in a Subpart L proceeding, there would need to be a time for mandatory disclosures under 10 C.F.R. §§ 2.336 and 2.1203. Then the parties would need time to develop and submit written testimony on Contention 5, both direct testimony and rebuttal. Next would come the submission of proposed direct and cross examination plans, and then the Board’s own preparation for, and conduct of, an oral hearing. See 10 C.F.R. § 2.1207.

D. Analysis of Admissibility Under the Six Basic Factors of Section 2.309(f)(1)

As we have already determined that Contention 5 does not meet the criteria for nontimely filing set forth in 10 C.F.R. § 2.309(c), it is not strictly necessary to determine whether Contention 5 meets the six-part admissibility test in section 2.309(f)(1). However, we do find that Contention 5 fails to “[p]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee” or to

include references to specific portions of the application (including the applicant’s environmental report and safety report) that the petitioner disputes . . . or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner’s belief.

10 C.F.R. § 2.309(f)(1)(vi). NEC refers to the NRC Staff’s presentation before the ACRS and the DSER, NEC Request at 16, but does not point to any specific portion of the application in which the alleged deficiencies can be found. NEC alleges that Entergy’s EPU application makes five specific false or inaccurate assumptions regarding the “potential of public exposure to exceedingly high doses of radioactivity.”²⁸ But, when pressed, “neither NEC nor Dr. Hopenfeld cite where in the EPU Application the allegedly erroneous assumptions are made.” Entergy Response at 25. To the contrary, Entergy shows that none of these five assumptions were made in the EPU application. *Id.* at 25-26.

In its reply, NEC shifts ground. Instead of pointing out where Entergy supposedly made the five “false” assumptions, NEC now characterizes Contention 5 as a contention of omission, stating that “[b]ecause Entergy has ignored the iodine spiking issue entirely, and provided no specific calculations of radioactivity . . . it was not possible . . . to cite the specific paragraphs [in the EPU application] where Entergy made incorrect assumptions.”²⁹ But NEC’s claim that Entergy has ignored the radiological consequences of design basis accidents under EPU conditions is plainly incorrect, because those analyses were submitted by Entergy in 2003, and approved by the NRC Staff, in a separate license amendment

²⁸ NEC Request, Exh. 1, Declaration of Dr. Joram Hopenfeld Supporting New England Coalition’s New Contentions (Apr. 6, 2006) at 4 (Hopenfeld Declaration-Request).

²⁹ NEC Reply, Exh. 1, Declaration of Dr. Joram Hopenfeld in Reply to NRC Staff and Entergy Responses to New England Coalition’s April 6, 2006 Request for Leave To File New Contentions (May 5, 2006) at 3 (Hopenfeld Declaration-Reply).

implementing an AST for Vermont Yankee.³⁰ Thus, while we do not say, as the Staff urges, that the existence of a prior AST license amendment means that Contention 5, which focuses on the radiological consequences of design basis accidents under EPU conditions, is not within the scope of an EPU proceeding under 10 C.F.R. § 2.309(f)(1)(iii),³¹ Staff Answer at 15, we do conclude that NEC has failed to show that a genuine dispute exists with regard to a material issue of law or fact. For this reason, Contention 5 fails the standard test for admissibility under section 2.309(f)(1)(vi).

IV. NEC NEW CONTENTION 6

The second of NEC's newly proffered contentions, which we will refer to as Contention 6 to distinguish it from other NEC contentions that have been submitted in this proceeding, reads as follows:

The ENVY application (Technical Specification Proposed Change No.263 w/Supplements 1-45) the radiological consequences at Vermont Yankee under uprate, and NRC staff review thereof, including Requests for Additional Information ('RAI') (ADAMS ML053260427 — Added 12/05/2005) and the SER, is [*sic*] incomplete insofar as it [*sic*] does not discuss how Vermont Yankee would comply with GDC-19, GDC 55, and 10 CFR 100.11 following the failure of small lines carrying primary coolant outside of containment. ENVY has not provided the requisite information in the instant application.

NEC Request at 6.

A. Position of the Parties

NEC's position on timeliness with respect to Contention 6 is the same as its position with respect to Contention 5 — timeliness under 10 C.F.R. § 2.309(f)(2) should be assessed relative to the date of the FSER, and that, if the contention is nontimely, it should be accepted because of the length of time NEC needed to "cumulatively apprehend clear and unambiguous information" related to

³⁰ Entergy's July 31, 2003 AST amendment application states "the AST analyses which have been performed consider the core isotopic values *at EPU conditions*." Entergy Response, Exh. 4 at 2 (emphasis added). The AST amendment was approved and issued on March 29, 2005. Vermont Yankee Nuclear Power Station Amendment to Facility Operating License, Amendment No. 223, License No. DPR-28 (Mar. 29, 2005), ADAMS Accession No. ML041280490.

³¹ "We reject the argument that because the MSIV LLTR is the subject of a prior license amendment request, it is automatically outside of the scope of the EPU application." LBP-04-28, 60 NRC 548, 570 (2004).

the contention. NEC Request at 11. NEC's pleading provides no information to demonstrate that Contention 6 meets the general contention admissibility standards of 10 C.F.R. § 2.309(f)(1), although the statement of their expert witness does address "basis" issues. Hopenfeld Declaration-Request at 9-10.

Entergy argues that Contention 6, which asserts that "the application . . . and the SER is [*sic*] incomplete insofar as it does not discuss how Vermont Yankee would comply . . . following the failure of small lines carrying primary coolant" is a contention of omission which "has nothing to do with the SER." Entergy Response at 12. Because the "omission" existed in the application *ab initio*, it "could and should have been raised as a proposed contention by NEC with its Petition in August 2004." *Id.* at 13. Furthermore, Entergy asserts that it did not need to submit the analysis that NEC requests because it previously submitted an AST license amendment request and is therefore not required to do so here. *Id.* at 27-29.

The NRC Staff also claims that NEC's new contentions should have been filed long before the FSER was issued in March 2006. The Staff makes reference to the ACRS meetings in November 2005, claiming that "[a]bsolutely no reason has been provided to show why NEC could not have filed its new contentions at that time, if not upon receipt of the Applicant's licensing submittals." Staff Answer at 8. The Staff rejects NEC's claim that the timeline for submitting contentions should be based on the issuance of the FSER, and further argues that NEC has failed to show good cause for filing the new contention months — or even years — after the appropriate deadline. *Id.* at 8-12. With respect to the substance of Contention 6, the Staff agrees with Entergy's claim that it is not required to submit the analysis NEC requests because such an analysis

should only be used if the licensee's radiological consequences analyses are not based on an alternative source term (i.e., if the analyses are based on a traditional source term . . .). In contrast, . . . Vermont Yankee has adopted an alternative source term, pursuant to an AST amendment issued on March 29, 2005, and its EPU radiological dose consequences analyses are based on the AST. Accordingly, template SE Section 2.9.3 [of the Staff's EPU Review Standard RS-001] does not apply.

Id. at 21 (citations and internal quotations omitted). In short, the Staff and Entergy assert that there is no omission, because Review Standard RS-001³² does not require such an analysis if the Applicant is using an AST.

NEC replies by arguing that the Staff and Entergy have misconstrued the relevant portion of Review Standard RS-001 ("Matrix 9"), which states that the

³²Review Standard for Extended Power Upgrades (Rev. 0 Dec. 2003), ADAMS Accession No. ML033640024 (Review Standard RS-001).

analysis is required for all “EPUs that do not utilize alternative source term *whose failure of small lines carrying coolant outside containment result in fuel failure.*” Hopenfeld Declaration-Reply at 4 (emphasis added). As we understand it, NEC is arguing that Matrix 9 of RS-001 only exempts facilities (a) that use an AST *and* (b) whose failure of small lines carrying coolant outside containment results in fuel failure, whereas (NEC posits) the Staff and Entergy believe that Matrix 9 exempts all facilities that use an AST. *Id.* at 5.

B. Analysis of Admissibility as a Timely New Contention Under Section 2.309(f)(2)

Much of the timeliness analysis offered under the discussion of Contention 5 also applies to Contention 6. This Board rejects NEC’s claim that issuance of the FSER started the timeliness clock for this contention, because, by NEC’s own admission, NEC had recognized and complained about the relevant information and/or omission — at the latest — by the time of the ACRS meetings in November and December of 2005. NEC Request at 13. We reject NEC’s efforts to excuse its delay by arguing that it needed months “to cumulatively apprehend” information it had available at that time.³³ *Id.* at 11. For this, and other reasons discussed above, we determine that Contention 6, like Contention 5, is not timely under section 2.309(f)(2).

C. Analysis of Admissibility as a Nontimely Contention Under Section 2.309(c)

Our application of the balancing test for nontimely filings also parallels the analysis presented for Contention 5. The information or omission that underlies Contention 6 was recognized as a problem by NEC at the time of the ACRS meetings in November and December 2005. NEC Request at 13. There has been no showing of good cause why NEC did not file Contention 6 soon thereafter, especially when it must have been obvious that delaying the filing of this contention would disrupt and delay this proceeding just when the adjudicatory hearing documents needed to be filed. As with Contention 5, this Board concludes that Contention 6 also fails the balancing test for the admission of nontimely contentions under section 2.309(c).

³³ In reality, the problem or omission NEC complains of probably existed since the summer of 2004 when the EPU application was docketed, and thus the clock for the filing of this contention began almost 2 years ago.

D. Analysis of Admissibility Under the Six Basic Factors of Section 2.309(f)(1)

Given that Contention 6 is inadmissible because it fails the alternate tests of 10 C.F.R. §§ 2.309(f)(2) (timely contentions) and 2.309(c) (nontimely contentions), we need not belabor whether it meets the six basic factors of 10 C.F.R. § 2.309(f)(1). It is sufficient to note that the omission complained of — that the application and SER are incomplete insofar as they do “not discuss how Vermont Yankee would comply with GDC-19, GDC 55, and 10 CFR 100.11 following the failure of small lines carrying primary coolant outside of containment” — is no omission at all, because such information is not required for EPU s that use ASTs. The Staff’s Review Standard RS-001 at 59 (Matrix 9 at 2), states that the Staff should review the “radiological consequences of the failure of small lines carrying primary coolant outside containment” for “EPU s that do *not utilize* alternative source term whose failure of small lines carrying primary coolant outside containment result in fuel failure.” Since Entergy’s EPU *utilizes* an AST, RS-001 does not require the Staff to review the radiological consequences of the failure of small lines.

NEC disputes this interpretation of Review Standard RS-001. NEC points out that RS-001 requires the radiological consequences analysis if *both* (a) the EPU does not use an AST *and* (b) the failure of small lines carrying coolant outside containment will result in fuel failure, i.e., the analysis is only required for a “subset” of EPU s not using ASTs. Hopenf eld Declaration-Reply at 4-5. We agree. NEC then urges a fallacious converse — that the radiological consequence analysis is *not* required only if *both* (a) and (b) are *missing*. This is logically invalid. Since the *combination* of (a) and (b) is what triggers the requirement for the radiological consequences analysis for small line failure, the absence of *either* precondition means that Matrix 9 does not mandate such an analysis. In this case, condition (a) (“the EPU does not use an AST”) is missing because Entergy’s EPU uses an AST, and thus Review Standard RS-001 does not call for a review of the radiologic consequences of small line breaks.

V. NEC NEW CONTENTION 7

The third of NEC’s newly proffered contentions, which we will refer to as Contention 7 to distinguish it from other NEC contentions that have been submitted in this proceeding, reads as follows:

ENVY Technical Specification Proposed Change No.263 w/ Supplement 1-42 does not comply with Drafts GDC-40 and 42 insofar as they require that protection must be provided against the dynamic effects of a LOCA.

Specifically, and in contradiction to Supplement 42 (provided to New England Coalition 12/05/2005) and ENVY testimony before the NRC Advisory Committee on Reactor Safeguards (11/15/2005, 11/16/2005, 11/29/2005, 11/30/2005, 12/07/2005, 12/08/2005, 12/09/2005), and the Steam Dryer Monitoring Plan endorsed in the NRC Final Safety Evaluation Report at page 50, and the NRC staff endorsement of Ascension Power Testing as described in NRC's staff's response to public comments on the SER at page 325, and NRC Staff's acceptance of ENVY steam dryer inspection results as determinative of no further crack growth at SER page 337, New England Coalition asserts that:

- a. The fatigue and the intergranular stress corrosion cracks, (IGSCC) which already exist on various Vermont Yankee steam dryer surfaces will increase in number and grow in size because of the higher stresses on the dryer structure from flow induced vibrations under EPU conditions.
- b. The increase [*sic*] energy content in the flow under EPU conditions will increase the intensity and duration of the dynamic loads that act on the dryer causing it potentially to fragment and generate many loose parts.
- c. The loose parts may migrate to the core region or the Main Steam Isolation Valve ("MSIV"), potentially blocking fuel flow channels and/or preventing the MSIV from isolating the containment following a main steam line break. The ultimate danger to the public from dryer failure is a core-melt with an early containment by pass.
- d. Because the ascension power tests, as described in Supplement 42, are limited to steady state conditions they will not provide any data that could indicate that the dryer would not fail catastrophically following LOCA.

NEC Request at 6-7.

A. Position of the Parties

NEC's position on timeliness with respect to Contention 7 is the same as its position with respect to Contentions 5 and 6 — timeliness under 10 C.F.R. § 2.309(f)(2) should be assessed relative to the date of the FSER, or alternately a nontimely filing under section 2.309(c) should be accepted because of the length of time NEC needed to "cumulatively apprehend clear and unambiguous information" related to the contention. NEC Request at 11. NEC provides no information to demonstrate that Contention 7 meets the general contention admissibility standards of 10 C.F.R. § 2.309(f)(1), although the statement of their expert witness does address basis issues. Hopenfeld Declaration-Request at 10-14.

Entergy argues that NEC had access to the information on which Contention 7 is based by November 22, 2005, at the latest, and that the contention therefore fails the timeliness test in 10 C.F.R. § 2.309(f)(2). Entergy Response at 15. It also

avers that NEC's expert acknowledges knowing about the "alleged vulnerability of VY to flow-induced vibration failure of its steam dryer as early as 2004," and that NEC therefore "could have and should have raised its steam dryer contention when it filed its Petition in August 2004." *Id.* at 16. Entergy also cites testimony submitted to the Staff by an NEC witness in August 2003, *id.* at 16-19, to support its claim that NEC has failed to show good cause for failure to file in a timely manner or to make a sufficient showing regarding the remaining elements of the section 2.309(c) test for nontimely filings. *Id.* at 20-21. Finally, Entergy rejects the substance of Contention 7 as "unsupported and ill-defined" and characterizes the statements made by NEC's expert in support of the contention as "vague" and "conclusory." *Id.* at 29, 31. Based on its argument that these statements are insufficient to provide a basis for the contention, Entergy claims that Contention 7 fails the general contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). *Id.* at 32.

The NRC Staff's position is that the Vermont Yankee FSER differs very little from the DSER, which was available November 2005, and the differences that do exist "do not support the admission of this expansively written contention." Staff Answer at 24. Furthermore, information relevant to the Applicant's steam dryer inspection appeared "in Supplement 42 to the EPU application, dated November 22, 2005" and "was addressed by Dr. Hopenfeld in his statements to the ACRS in November 2005." *Id.* at 24-25. According to the Staff, NEC "could — and should — have filed this contention at that time." *Id.* at 24. The NRC Staff presents no independent argument applying the balancing test for nontimely filing, asserting merely that "[n]o reason appears as to why NEC could not have filed its New Contention [Seven] at the time it addressed these issues before the ACRS." *Id.* at 25. The Staff presents no arguments regarding the substance of Contention 7 or the contention admissibility standards in 10 C.F.R. § 2.309(f)(1).

B. Analysis of Admissibility as a Timely New Contention Under Section 2.309(f)(2)

The timeliness analyses offered under the discussion of Contentions 5 and 6 also apply to Contention 7. The Board finds that the information on which Contention 7 is based was available — at the latest — in November and December 2005 and thus that a timely contention should have been filed promptly thereafter. The gist of the contention — that stress corrosion cracks on dryer surfaces may increase in number and grow in size because of greater flow-induced vibrations under EPU conditions — was known to NEC's expert as early as 2005³⁴ and certainly is not based on any new and materially different information in the

³⁴ACRS Transcript 11/16/05 at 279-83.

FSER. We reject NEC's attempts to connect its submission to a later date by claiming that it could not piece together the relevant information at the appropriate time and by suggesting that the deadline for contentions based on the FSER should also apply to contentions not based on the FSER. NEC Request at 11, 15. We therefore determine, as we did for Contentions 5 and 6, that Contention 7 should not be deemed timely.

C. Analysis of Admissibility as a Nontimely Contention Under Section 2.309(c)

Our application of the balancing test for nontimely filings also parallels the analysis presented for Contentions 5 and 6. NEC failed to show good cause for its failure to file Contention 7 in a timely manner and failed to address the fact that admitting the contention this late in the proceeding will substantially broaden and delay litigation.³⁵

VI. CONCLUSION

For the reasons stated above, New England Coalition Contentions 5, 6, and 7 are not admitted.

³⁵ Although our general impression is that NEC Contention 7 may satisfy the six basic criteria of 10 C.F.R. § 2.309(f)(1), the unexcused untimeliness of this contention makes it unnecessary for us to resolve this issue.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD³⁶

Alex S. Karlin, Chairman
ADMINISTRATIVE JUDGE

Anthony J. Baratta
ADMINISTRATIVE JUDGE

By G.P. Bollwerk, III for:
Lester S. Rubenstein
ADMINISTRATIVE JUDGE

Rockville, Maryland
May 25, 2006

³⁶Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to representatives for (1) Licensees Entergy Nuclear Vermont Yankee, L.L.C., and Entergy Nuclear Operations, Inc.; (2) Intervenors Vermont Department of Public Service and New England Coalition of Brattleboro, Vermont; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

G. Paul Bollwerk, III, Chairman
Dr. Paul B. Abramson
Dr. Charles N. Kelber

In the Matter of

Docket No. 70-3103-ML
(ASLBP No. 04-826-01-ML)

LOUISIANA ENERGY SERVICES, L.P.
(National Enrichment Facility)

May 31, 2006

In this 10 C.F.R. Part 70 proceeding regarding the application of Louisiana Energy Services, L.P. (LES), for authorization to possess and use source, byproduct, and special nuclear material to enrich natural uranium by the gas centrifuge process at its planned National Enrichment Facility (NEF) to be built near Eunice, New Mexico, relative to safety-related challenges to the LES application posed by contentions submitted by Intervenor Nuclear Information and Resource Service and Public Citizen (NIRS/PC), the Licensing Board finds that although LES carried its burden of proof to demonstrate the adequacy of its application regarding the plausibility of its challenged private depleted uranium (DU) dispositioning strategy and certain aspects of the cost estimates associated with the deconversion and disposal of DU tails generated by the NEF, LES's failure to carry its burden in connection with NIRS/PC contentions contesting LES's cost estimate for private sector deconversion and near-surface disposal of DU from the NEF requires that for the purpose of fulfilling the NRC's financial assurance/decommissioning funding plan (DFP) requirements, agency licensing of the NEF should be based on the cost estimates applicable under the plausible strategy associated with the United States Department of Energy (DOE) providing dispositioning services in accordance with section 3113 of the USEC Privatization Act, 42 U.S.C. § 2297h-11.

**DECOMMISSIONING: FINANCIAL ASSURANCE
(DECOMMISSIONING FUNDING PLAN REQUIREMENTS)**

The NRC's regulations require an applicant seeking a license to construct and operate a uranium enrichment facility to submit with its application a proposed decommissioning funding plan. *See* 10 C.F.R. §§ 70.22(a)(9), 70.25(a); *see also id.* §§ 30.35, 40.36 (imposing the same or substantially similar requirements on applicants for a license to possess and use byproduct material and source material, respectively). The purpose of the DFP is to ensure an applicant has (1) considered the decommissioning activities that may be required at the proposed facility over time; (2) presented a credible, site-specific cost estimate for conducting those activities; and (3) provided the NRC with financial assurance to cover those estimated costs should a third party have to take responsibility for facility decommissioning. *See* NUREG-1520, "Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility" (Mar. 2002) at 10-1 [hereinafter SRP].

**DECOMMISSIONING: FINANCIAL ASSURANCE
(DECOMMISSIONING FUNDING PLAN REQUIREMENTS)**

Section 70.25(e) of Title 10 of the *Code of Federal Regulations* (C.F.R.) requires that a DFP "contain a cost estimate for decommissioning and a description of the method of assuring funds for decommissioning . . . including means for adjusting cost estimates and associated funding levels periodically over the life of the facility," i.e., at least triennially. The DFP must also include a certification by the applicant that financial assurance for decommissioning has been provided in an amount equal to the decommissioning cost estimate, and furnish a signed original or appropriate duplicate of the applicant's financial assurance instrument. *See id.*

**DECOMMISSIONING: FINANCIAL ASSURANCE (FUNDING
METHODS)**

Section 70.25(f) of Title 10 of the C.F.R. discusses the methods by which financial assurance may be provided by a private applicant, namely (1) prepayment into a segregated account, such as a trust or escrow account, prior to the start of facility operations; (2) a surety method, insurance, or other guarantee method; or (3) an external sinking fund, such as a trust or escrow account, into which annual deposits are made, coupled with a surety method or insurance, the value of which decreases by the amount accrued in the sinking fund. *See id.* § 70.25(f)(1)-(3).

DECOMMISSIONING: FINANCIAL ASSURANCE (PERIODIC ADJUSTMENT)

According to the Commission, the purpose of the triennial adjustments to an applicant's decommissioning cost estimates and associated financial assurance levels is to "help ensure that financial assurance obtained by licensees will not become inadequate as a result of changing disposal prices or other factors," such as inflation or changes in the scope of operations. *See* 68 Fed. Reg. 57,327, 57,332 (Oct. 3, 2003). Therefore, the triennial adjustments required by section 70.25 are intended to account for changes in a licensee's cost estimates regardless of the cause, and to ensure that adequate financial assurance is provided by the licensee at any given time.

DECOMMISSIONING: FINANCIAL ASSURANCE (INITIAL COST ESTIMATE; PERIODIC ADJUSTMENT)

The initial cost estimates provided in an applicant's DFP must encompass those foreseeable activities associated with decommissioning, including radioactive waste disposal, and must present a reasonably accurate estimate of the direct and indirect costs involved in decommissioning under routine facility conditions. *See* SRP at 10-1; NUREG-1757, "Consolidated NMSS Decommissioning Guidance," vol. 3 (Sept. 2003) at 4-9, A-26 [hereinafter NUREG-1757]. Thus, the availability of the periodic adjustment mechanism should have no bearing on the robustness of the initial decommissioning cost estimate, in that it is not meant to provide a backstop for underestimation, but rather to account for costs unforeseen at the time of licensing.

DECOMMISSIONING: FINANCIAL ASSURANCE (STAFF GUIDANCE)

REGULATORY GUIDANCE: INTERPRETATION AND APPLICATION

NRC Staff guidance documents generally do not constitute legally binding interpretations of agency regulations. *See Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-33, 60 NRC 581, 596 (2004). NUREG-1757, "Consolidated NMSS Decommissioning Guidance," is, however, particularly instructive for the purposes of interpreting the agency's financial assurance and decommissioning cost estimate regulations.

DECOMMISSIONING: FINANCIAL ASSURANCE (SUFFICIENCY OF COST ESTIMATE)

Pursuant to NUREG-1757, the NRC Staff reviews an applicant's decommissioning cost estimate to ensure it is "based on documented and reasonable assumptions" so as to provide sufficient funds to allow a third party to take responsibility for facility decommissioning if a licensee is unable to do so. *See* NUREG-1757, at 4-9. Section 4.1 sets forth minimum criteria that a cost estimate must meet before the Staff can find it acceptable. Specifically, the cost estimate must: (1) meet all applicable regulatory requirements; (2) be based on documented and reasonable assumptions; (3) use unit cost factors that are reasonable and consistent with NRC cost estimation reference documents; (4) include costs for labor, equipment and supplies, overhead and contractor profit, sampling and laboratory analysis, and other miscellaneous expenses (e.g., license fees); (5) apply a contingency factor of at least 25% to the sum of all estimated costs; (6) take no credit for salvage value from the sale of potential assets or reduced taxes based on payment of decommissioning or site control and maintenance costs; (7) identify adequate means for adjusting the cost estimate and associated funding level over the life of the facility and any storage or surveillance period; (8) reflect decommissioning under normal facility conditions; and (9) include costs for all major decommissioning and site control and maintenance activities, including (a) planning and preparation, (b) decontamination and/or dismantling of facility components, (c) packaging, shipment, and disposal of radioactive wastes, (d) a final radiation survey, (e) restoration of contaminated areas on facility grounds, if necessary, and (f) site stabilization and long-term surveillance, if necessary. *See id.* at 4-10.

DECOMMISSIONING: FINANCIAL ASSURANCE (DECOMMISSIONING FUNDING PLAN REQUIREMENTS)

The Staff also reviews the financial assurance mechanisms specified in an applicant's DFP, specifically to (1) determine whether the proposed mechanisms are acceptable and (2) ensure the certification specifies the correct amount of financial assurance and attests compliance with the appropriate regulatory requirements. *See* NUREG-1757, at 4-6.

DECOMMISSIONING: FINANCIAL ASSURANCE (DECOMMISSIONING PLAN REQUIREMENTS)

Certain licensees are also required, at the end of a facility's license period, to submit a decommissioning plan (DP) for Staff approval prior to beginning decommissioning activities. The purpose of the DP is in part to ensure that,

as is envisioned in the DFP, the licensee has maintained adequate funding and financial assurance through the term of the license. *See* NUREG-1757, at 4-4. A DP must include (1) an updated, detailed cost estimate for decommissioning; (2) a comparison of that estimate with the amount of funds presently set aside for decommissioning; and (3) a plan for assuring the availability of adequate funds to complete decommissioning activities. *See id.* at 4-5. The DP must also specify at least one financial assurance mechanism, including supporting documentation, that the Staff will again review for adequacy. *See id.* at 4-6.

DECOMMISSIONING: FINANCIAL ASSURANCE (“PLAUSIBLE STRATEGY” DEMONSTRATION)

Discussing the concept of a “plausible strategy” for dispositioning DU tails, the Commission has stated that “[w]hile a ‘plausible strategy’ for private conversion of the tails does not mean a definite or certain strategy, to include completion of all necessary contractual arrangements, it must represent more than mere speculation.” *See* CLI-04-25, 60 NRC 223, 226 (2004).

DECOMMISSIONING: FINANCIAL ASSURANCE (“PLAUSIBLE STRATEGY” DEMONSTRATION; SUFFICIENCY OF COST ESTIMATE)

“While the concepts of technical feasibility of a particular strategy and the costs of implementing such a strategy might arguably be linked in the common term ‘plausible’ . . . the cost of implementation of a particular strategy has no bearing upon whether any particular strategy is technically [feasible].” *See* Licensing Board Memorandum and Order (Ruling on Late-Filed Contentions) (Nov. 22, 2004) at 13 (unpublished). Accordingly, the sufficiency of a decommissioning cost estimate rests, at least in part, on whether a particular strategy is plausible, that is, a finding that a particular strategy is “plausible” is a necessary precursor to a finding that a cost estimate is “documented and reasonable.”

DECOMMISSIONING: FINANCIAL ASSURANCE (“PLAUSIBLE STRATEGY” DEMONSTRATION; SUFFICIENCY OF COST ESTIMATE)

The mere fact that a strategy is “plausible” does not establish that sufficiently documented and reasonable cost estimates can be developed for that strategy. Thus, the question of whether an applicant has presented a plausible strategy, although related to disposition costs, is an inquiry distinct from and precedent to the question of the adequacy of an applicant’s dispositioning cost estimates.

DECOMMISSIONING: FINANCIAL ASSURANCE (“PLAUSIBLE STRATEGY” DEMONSTRATION)

The Commission has determined that transfer of DU from enrichment operations to DOE for deconversion and disposal constitutes a “plausible strategy” for dispositioning. *See* 69 Fed. Reg. at 5877; CLI-05-5, 61 NRC 22, 34 (2005).

DECOMMISSIONING: FINANCIAL ASSURANCE (SUFFICIENCY OF COST ESTIMATE)

The primary purpose of the requirement that an applicant demonstrate a “plausible strategy” for dispositioning DU waste is to provide a foundation upon which to build reasonable cost estimates for various elements related to ultimate decommissioning of the proposed facility. A proposed strategy may well be “plausible,” yet the related cost estimates lack a sufficient footing in “documented and reasonable assumptions,” *see* NUREG-1757, at 4-10, so as to afford reasonable assurance there will be sufficient future funds to support decommissioning and so provide an adequate foundation for a DFP. The combination of “documented” and “reasonable” assumptions reflects an overall concept of “reliability,” that is, an estimate that is sufficiently trustworthy and dependable to be utilized as a basis for making the requisite financial assurance findings.

DECOMMISSIONING: FINANCIAL ASSURANCE (SUFFICIENCY OF COST ESTIMATE)

USEC PRIVATIZATION ACT: REQUIRED DEPLETED URANIUM WASTE DISPOSITION

Section 3113 of the USEC Privatization Act, 42 U.S.C. § 2297h-11, requires DOE to accept for dispositioning DU from a private uranium enrichment facility upon request of the facility operator (or appropriate third party). When acting pursuant to that statutory authority/obligation, DOE can set its costs or cost estimates at whatever level it determines is appropriate. In other words, while section 3113 requires DOE to accept DU for deconversion and disposal at the request of an NRC-licensed uranium enrichment facility operator, it also gives DOE the exclusive authority to determine the amount of reimbursement required for disposition of that DU waste. Neither an intervenor nor an applicant/licensee (nor seemingly the NRC) has the authority to challenge or direct DOE’s estimates of the fees it will charge to a uranium enrichment facility that requests DOE to disposition its DU waste. *See, e.g., Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-836, 23 NRC 479, 499 (1986) (licensing boards do not undertake review of whether another federal agency

complied with its own regulations); *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-82-117A, 16 NRC 1964, 1991 (1982) (licensing boards should not entertain collateral attacks upon the actions of other federal agencies on a matter over which the Commission has no jurisdiction).

DECOMMISSIONING: FINANCIAL ASSURANCE (THIRD-PARTY COST ESTIMATES)

USEC PRIVATIZATION ACT: REQUIRED DEPLETED URANIUM WASTE DISPOSITION (SUFFICIENCY OF COST ESTIMATE)

When DOE acts pursuant to section 3113 in setting disposition costs or providing cost estimates, the situation is somewhat analogous to a circumstance in which an applicant and/or the Staff are entitled to rely on statements of third-party market participants. *See, e.g.*, LBP-05-13, 61 NRC 385, 440, 444-45 (2005) (applicant can rely on public statements of market participants regarding plans to close old enrichment facilities or open new ones). In that sense, DOE cost estimates represent an arm's-length, third-party estimate of the cost of doing business, albeit in an instance when the party offering the estimate is statutorily bound to provide that service. Accordingly, cost estimates provided relative to the DOE "plausible strategy" are sufficiently reliable to provide the basis for an initial estimate of the portion of decommissioning funding associated with disposition of DU waste.

DECOMMISSIONING: FINANCIAL ASSURANCE (THIRD-PARTY COST ESTIMATES)

An applicant may provide cost estimates for each of the elements of its DFP by obtaining estimates of the actual cost of providing a service from experienced third parties. Such an estimate would be sufficiently reliable for establishing the initial estimate of decommissioning funding associated with those elements.

DECOMMISSIONING: FINANCIAL ASSURANCE (THIRD-PARTY COST ESTIMATES)

Obtaining a cost estimate from an experienced third-party vendor is not the only way for an applicant to demonstrate that its cost estimate is documented and reasonable, although it clearly is one way to reach that end.

DECOMMISSIONING: FINANCIAL ASSURANCE (“PLAUSIBLE STRATEGY” DEMONSTRATION; SUFFICIENCY OF COST ESTIMATE)

Whether a particular waste dispositioning strategy is “plausible” relates to, but is not dispositive of, the issue whether a decommissioning cost estimate is sufficiently reliable to be used as a foundation for determining the appropriate size of an applicant/licensee’s decommissioning fund. For a strategy to be “plausible” it must be more than merely technically feasible, but a strategy can be plausible and still not appropriately developed and documented to provide a sound footing on which to rest the public health and safety. In other words, the existence of a “plausible strategy” for dispositioning DU is a necessary condition to a demonstration that an applicant has presented a reliable decommissioning cost estimate (i.e., one that is based on “documented and reasonable assumptions”), but is not, in and of itself, sufficient to satisfy that threshold.

DECOMMISSIONING: FINANCIAL ASSURANCE (“PLAUSIBLE STRATEGY” DEMONSTRATION)

A memorandum of understanding between an applicant and another entity with regard to the potential construction and operation of a private DU deconversion facility, demonstrating the anticipation of both those parties that an appropriate facility could be constructed to meet the applicant’s timing and throughput requirements, provides the additional indicia of feasibility necessary to demonstrate that the associated private deconversion strategy is more than “mere speculation” and falls well within the realm of a plausible proposed strategy. This is particularly so when the applicant has identified a specific entity with pertinent, proven technology and experience as the basis for its private deconversion strategy.

DECOMMISSIONING: FINANCIAL ASSURANCE (SUFFICIENCY OF COST ESTIMATE)

Although the estimated cost of constructing and operating a deconversion facility may be developed based on prior experience with a similar facility, such estimates must include the entirety of expected costs to the applicant or a third party by, for example, providing a thorough analysis such as would typically be developed and used for any new project.

DECOMMISSIONING: FINANCIAL ASSURANCE (THIRD-PARTY COST ESTIMATES)

Having a third-party estimate for decommissioning costs is not necessarily

mandated by the relevant NRC regulations and guidance; nonetheless, having such a cost estimate adds significantly to the reliability of that estimate, *see, e.g.*, NUREG-1827, “Safety Evaluation Report for the [NEF] in Lea County, New Mexico” (June 2005) at 10-11 to -12.

DECOMMISSIONING: FINANCIAL ASSURANCE (SUFFICIENCY OF COST ESTIMATE)

To provide a reliable estimate of the costs of deconverting DU from enrichment operations, an applicant can follow one of two paths: (1) obtain an estimate from a knowledgeable, experienced third party of what that third party would charge to provide deconversion services for the applicant/licensee based on its projected deconversion needs; or (2) obtain a thorough analysis from a qualified, credible source of what it would cost either the applicant/licensee or a third party to build, own, operate, and decommission a deconversion facility at an appropriate site. In the former circumstance, a summary bid or price quote from an experienced third-party vendor would suffice. For the latter scenario, the same detailed cost analysis would be required regardless of whether the actual construction and operation of the deconversion facility was completed by the applicant/licensee or a third party, though the cost figures resulting from such an analysis would undoubtedly differ.

DECOMMISSIONING: FINANCIAL ASSURANCE (INITIAL COST ESTIMATE)

An applicant is not required, as a basis for its initial decommissioning funding cost estimate, to make projections or otherwise speculate about what events may or may not occur in the distant future. The initial decommissioning cost estimate thus is appropriately based on demonstrable *current* market conditions, and any future changes in the market that would impact cost estimates should be accounted for as part of the periodic update process.

EVIDENCE: HEARSAY (STANDARD OF ADMISSIBILITY)

An applicant’s withdrawal of an individual as a witness and potential deponent, in the face of the remaining witness’s admission that he has no expertise in the specific subject matter at issue, does not provide a basis for disqualifying or disregarding the information obtained from the withdrawn witness when that witness was identified as the source of the information and, notwithstanding his removal from the applicant’s witness list, seemingly could have been subjected to discovery and compelled to provide testimony before the Board, *see* 10 C.F.R.

§§ 2.702(a), 2.706(a). Under these circumstances, there is no compelling basis for discounting the disputed hearsay information as unreliable. *Compare Tennessee Valley Authority* (Hartsville Nuclear Plant, Units 1A, 2A, 1B, and 2B), ALAB-367, 5 NRC 92, 121 (1977) (non-expert's testimony based on what he was told by anonymous expert stricken as unreliable hearsay).

DECOMMISSIONING: FINANCIAL ASSURANCE (PERIODIC ADJUSTMENT; SUFFICIENCY OF COST ESTIMATE)

A cost estimate that lacks a reliable basis is not one that can be endorsed as the basis for a DFP. Although, as the Commission has made apparent, Licensing Boards are not to be involved simply in "formalistic" redrafting in connection with such a plan, *see Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 9 (1996), if an applicant's cost estimate lacks sufficient support regarding the direct and indirect costs involved, then the availability of the periodic adjustment should not be the basis, in and of itself, for passing the plan forward with the hope that its deficiencies will be rectified at some point in the future.

DECOMMISSIONING: FINANCIAL ASSURANCE (PERIODIC ADJUSTMENT)

To the degree future developments impact upon the cost of otherwise foreseeable items, regardless of the size of the change or revision that is needed, the cost estimates, and the decommissioning funding for which they provide the basis, would be modified as they become apparent through the periodic adjustment process.

TECHNICAL ISSUE(S) DISCUSSED

The following technical issues are discussed: decommissioning (adequacy of cost estimates); plausible strategy for disposition of depleted uranium; decommissioning (contingency factor); decommissioning (transportation costs).

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**THIRD PARTIAL INITIAL DECISION
(Safety-Related Contentions)**

I. INTRODUCTION

1.1 On December 12, 2003, Louisiana Energy Services, L.P. (LES), filed an application with the NRC seeking a license to construct and operate a uranium enrichment facility — designated the National Enrichment Facility (NEF) — near

Eunice, New Mexico. This Third Partial Initial Decision presents the Licensing Board's findings of fact and conclusions of law relative to the remaining contested matters proffered by Intervenors Nuclear Information and Resource Service and Public Citizen (NIRS/PC), set forth in contentions NIRS/PC Environmental Contention (EC)-3/Technical Contention (TC)-1–Depleted Uranium Hexafluoride [UF_6] Storage and Disposal; NIRS/PC EC-5/TC-2–Decommissioning Costs; and NIRS/PC EC-6/TC-3–Costs of Management and Disposal of Depleted UF_6 . Each of these admitted contentions challenges the adequacy of certain safety-related (as opposed to strictly environmental) aspects of the LES application, including its Safety Analysis Report (SAR).¹

1.2 For the reasons set forth below, the Board finds that, in the face of the NIRS/PC safety-related challenges to the LES application reflected in (1) contention NIRS/PC EC-3/TC-1, which challenges LES's private deconversion strategy, (2) those portions of contention NIRS/PC EC-5/TC-2 that challenge the adequacy of LES's transportation cost estimate associated with the deconversion and disposal of depleted uranium (DU) tails generated by the NEF and the contingency factor applied to its overall dispositioning cost estimate, and (3) paragraph E (calcium fluoride (CaF_2) disposal costs), paragraph G (plausibility of LES's private deconversion strategy), and paragraph I (plausibility of engineered trench disposal) of contention NIRS/PC EC-6/TC-3, LES has carried its burden of proof to demonstrate the adequacy of that application in accordance with 10 C.F.R. §§ 30.35, 40.36, and 70.25, and the relevant guidance in NUREG-1757.² Regarding, however, the challenges to (1) LES's cost estimate for private sector deconversion of DU from the NEF as set forth in contention NIRS/PC EC-5/TC-2 and paragraph G of contention NIRS/PC EC-6/TC-3; and (2) its cost estimate for disposal of NEF-generated DU as set forth in contention NIRS/PC

¹Although each of the contentions we address in this Partial Initial Decision was originally denominated an environmental/technical contention, the issues actually litigated relative to each of those contentions focused primarily on safety and technical matters. To the extent environmental issues are raised or addressed herein, our National Environmental Policy Act (NEPA)-related discussions in our two previous partial initial decisions provide context for those issues. *See* LBP-06-8, 63 NRC 241, 258-60 (2006); LBP-05-13, 61 NRC 385, 403-05 (2005).

²Throughout this Decision, we use several terms — namely, decommissioning, disposition(ing), deconversion, and disposal — that all relate in some manner to the ultimate decommissioning of the NEF facility. To avoid confusion, we find it instructive to define those terms as we use them herein. As defined by 10 C.F.R. § 70.4, to decommission a facility “means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits — (1) Release of the property for unrestricted use and termination of the license; or (2) Release of the property under restricted conditions and termination of the license.” As relevant here, decommissioning includes decontamination of the proposed NEF facility and site, and dispositioning the DU produced by the NEF. Dispositioning, in turn, includes both deconversion of the DU, i.e., converting the DU from the chemical form DUF_6 to a more stable uranium oxide form, and ultimate disposal of that deconverted depleted uranium oxide at a low-level radioactive waste disposal facility.

EC-5/TC-2 and paragraph I of contention NIRS/PC EC-6/TC-3, the Board finds that LES has failed to carry its burden to demonstrate the adequacy of those cost estimates in accordance with 10 C.F.R. §§ 30.35, 40.36, and 70.25, and the relevant guidance in NUREG-1757. As a consequence, LES having failed to provide a comprehensive cost estimate regarding private sector disposition of NEF-related DU tailings, the Board concludes that for purposes of fulfilling the financial assurance/decommissioning funding plan (DFP) requirements of 10 C.F.R. §§ 30.35, 40.36, and 70.25, and the relevant guidance in NUREG-1757, agency licensing of the NEF facility should be based on the cost estimates that would be applicable under the plausible strategy associated with the United States Department of Energy (DOE) providing dispositioning services in accordance with section 3113 of the USEC Privatization Act, 42 U.S.C. § 2297h-11.

II. PROCEDURAL BACKGROUND

2.1 The Licensing Board has discussed the procedural history of the contested portion of this proceeding on several prior occasions, including in the context of our first and second partial initial decisions on environmental contentions, *see* LBP-06-8, 63 NRC at 250-58; LBP-05-13, 61 NRC at 392-402, and will not repeat that discussion here. Rather, to provide context for this Third Partial Initial Decision, we focus below on the history of this proceeding relative to several safety-related contentions championed by NIRS/PC.

A. Contention Admission

2.2 On January 30, 2004, the Commission issued a notice of hearing and opportunity to intervene in the proceeding regarding the December 2003 application for a 30-year 10 C.F.R. Part 70 license to construct and operate the proposed NEF. *See* CLI-04-3, 59 NRC 10 (2004) (69 Fed. Reg. 5873 (Feb. 6, 2004)). NIRS/PC, as well as two state governmental intervenors, the New Mexico Environment Department (NMED) and the Attorney General of New Mexico (AGNM), responded to that notice by filing petitions to intervene pursuant to 10 C.F.R. § 2.309(a). *See* LBP-05-13, 61 NRC at 392. The Commission found that, as *situs* state government representatives, the New Mexico petitioners did not need to demonstrate their standing to intervene. Additionally, the Commission concluded that NIRS/PC had demonstrated the requisite standing and, accordingly, referred the AGNM, NMED, and NIRS/PC petitions to the Licensing Board Panel for consideration. *See id.* at 393. On April 15, 2004, this Licensing Board was constituted to preside over the LES adjudicatory proceeding, *see id.* at 392, and on June 15, 2004, the Board held a prehearing conference in Hobbs, New Mexico, during which the petitioners, LES, and the Staff made oral presentations

regarding the admissibility of each contention submitted by NMED, the AGNM, and NIRS/PC, including the three safety-related contentions at issue here, *see* LBP-04-14, 60 NRC 40, 52 (2004).

2.3 In their original forms as set forth in NIRS/PC's intervention petition,³ the three NIRS/PC safety-related contentions at issue here provide as follows:

NIRS/PC EC-3/TC-1 — DEPLETED URANIUM HEXAFLUORIDE STORAGE AND DISPOSAL

CONTENTION: Petitioners contend that LES does not have [a] sound, reliable, or plausible strategy for disposal of the large amounts of radioactive and hazardous Depleted Uranium Hexafluoride (“DUF₆”) waste that the operation of the plant would produce. *See* NRC Order, 69 Fed. Reg. 5873, 5877 (Feb. 6, 2004).

* * * *

NIRS/PC EC-5/TC-2 — DECOMMISSIONING COSTS

CONTENTION: LES has presented estimates of the costs of decommissioning and funding plan as required by 42 U.S.C. 2243 and 10 C.F.R. 30.35, 40.36, and 70.25 to be included in a license application. *See* SAR 10.0 through 10.3; [Environmental Report (ER)] 4.13.3. Petitioners contest the sufficiency of such presentations.

* * * *

NIRS/PC EC-6/TC-3 — COSTS OF MANAGEMENT AND DISPOSAL OF DEPLETED UF₆

CONTENTION: Petitioners contend that LES's application seriously underestimates the costs and the feasibility of managing and disposing of the depleted UF₆ (“DUF₆”) produced in the planned enrichment facility.

Id. at 67-69.⁴

³The original contentions were further clarified by a Board-requested supplement to NIRS/PC's petition and a Board prehearing conference scheduling order, but none of these changes altered the substance of the contentions presented in the original intervention petition. *See* LBP-05-13, 61 NRC at 392-93.

⁴In addition to the three contentions that are the subject of the instant Decision, the Board heard presentations on several other safety-related contentions proffered by NMED, the AGNM, or NIRS/PC, including contentions NMED TC-3/EC-4–Radiation Protection Program, AGNM TC-i–Disposal Security, AGNM TC-ii–Disposal Cost Estimates, and NIRS/PC EC-9/TC-6–Natural Gas-Related Accident Risks. *See* LBP-04-14, 60 NRC at 61, 62-63, 70-71. Each of these contentions, although subsequently admitted by the Board, since has been disposed of in some manner. The resolution of those issue statements are discussed in more detail below. *See infra* note 11 (contention NIRS/PC TC-6 withdrawn pursuant to parties' May 23, 2005 joint report); *infra* note 13 (contentions NMED TC-3/EC-4, AGNM TC-i, and AGNM TC-ii withdrawn pursuant to settlement agreement).

2.4 On July 19, 2004, the Board issued a memorandum and order admitting NMED, the AGNM, and NIRS/PC as parties to the proceeding, each having established the requisite standing to intervene and having proffered at least one admissible contention. *See id.* at 48. Specifically, the Board held that contention NIRS/PC EC-6/TC-3 was admissible as supported by bases sufficient to establish a genuine material dispute adequate to warrant further inquiry. *See id.* at 69. NIRS/PC EC-3/TC-1 was admitted to the extent that it averred LES did not have a plausible strategy for private sector disposal of DU, in that LES had provided a “grossly inadequate” statement regarding access to an exhausted uranium mine for disposal of DU; had provided a statement regarding discussions with COGEMA⁵ concerning a private deconversion facility that were without substance; and had failed to address DU disposition based on the assumption that deep geologic disposal is required. *See id.* at 78. In addition, because the ruling admitting this contention raised a novel legal or policy question regarding the status of DU as low-level waste, the Board referred this ruling to the Commission pursuant to 10 C.F.R. § 2.323(f). *See id.* at 67. Finally, regarding contention NIRS/PC EC-5/TC-2, the Board found it admissible to the extent it challenged the sufficiency of the LES cost estimates as “based on a contingency factor that is too low, a low estimate of the cost of capital, and an incorrect assumption the costs are for low-level waste only.” *Id.* at 68.

2.5 To reflect these admissibility rulings, the Board set forth in Appendix A to its July 2004 ruling the following revised versions of contentions NIRS/PC EC-3/TC-1, NIRS/PC EC-6/TC-3, and NIRS/PC EC-5/TC-2:⁶

NIRS/PC EC-3/TC-1 — DEPLETED URANIUM HEXAFLUORIDE STORAGE AND DISPOSAL

CONTENTION: Petitioners contend that Louisiana Energy Service, L.P., (LES) does not have a sound, reliable, or plausible strategy for private sector disposal of the large amounts of radioactive and hazardous Depleted Uranium Hexafluoride (“DUF₆”) waste that the operation of the plant would produce in that:

- (A) The statement (LES Environmental Report (ER) 4.13-8) that a ConverDyn partner, General Atomics, “may have access to an exhausted uranium mine . . . where depleted [uranium oxide (U₃O₈)] could be disposed” represents a grossly inadequate certitude for a “plausible strategy” determination, particularly for a radioactive and hazardous substance which has been

⁵COGEMA’s corporate structure and relationship to LES is discussed further below, *see infra* p. 635 & note 33.

⁶Although, as originally admitted, contention NIRS/PC EC-5/TC-2 was consolidated with AGNM TC-i and renamed NIRS/PC EC-5/TC-2; AGNM TC-i to reflect that consolidation, because contention AGNM TC-i was later withdrawn pursuant to the AGNM’s settlement agreement with LES, *see infra* note 13, we herein refer to this contention as NIRS/PC EC-5/TC-2.

- accumulating in massive quantities in the United States for fifty-seven years without a plausible disposal program.
- (B) Similarly, the statement that “discussions have recently been held with [COGEMA] concerning a private conversion facility” (ER 4.13-8) is without substance.
 - (C) The disposition of depleted uranium must be addressed based on the radiological hazards of this material that require that it be disposed of in a deep geological repository.

* * * *

NIRS/PC EC-5/TC-2[] — DECOMMISSIONING COSTS

CONTENTION: Louisiana Energy Services, L.P., (LES) has presented estimates of the costs of decommissioning and funding plan as required by 42 U.S.C. 2243 and 10 C.F.R. 30.35, 40.36, and 70.25 to be included in a license application. *See* Safety Analysis Report 10.0 through 10.3; ER 4.13.3. Petitioners contest the sufficiency of such presentations as based on (1) a contingency factor that is too low; (2) a low estimate of the cost of capital; and (3) an incorrect assumption that the costs are for low-level waste only.

NIRS/PC EC-6/TC-3 — COSTS OF MANAGEMENT AND DISPOSAL OF DEPLETED UF₆

CONTENTION: Petitioners contend that the Louisiana Energy Services, L.P., (LES) application seriously underestimates the costs and the feasibility of managing and disposing of the Depleted Uranium Hexafluoride (“DUF₆”) produced in the planned enrichment facility in that:

- (A) LES’s reliance on the Lawrence Livermore National Laboratory (LLNL) Report as a basis for LES’s cost estimate for deconversion and disposal is not justified given the report states its cost estimates as medians.
- (B) LLNL cost estimates are based on travel distances of 1000 kilometers or 620 miles (§ 4.1.3, at 37, *id.* 92), but the data presented in the LES application show that travel over 1000 miles would be required to convert the DUF₆ at Paducah, Kentucky or Portsmouth, Ohio, and travel of an additional 1000 miles (Environmental Report (ER) Table 4.13-1) would be required to get the material to a disposal site.
- (C) In LLNL’s projections of the cost of decommissioning, it is assumed that materials such as steel used in the construction could be recycled. (*See* ER 4.13-17). Thus, it is assumed that such material would not constitute waste. However, such an assumption cannot be made.
- (D) Significant revenues are assumed from the sale of [CaF₂] — \$11.02 million per year (ER 4.13-17, Table 4.13-2; LLNL Report at 50). These assump-

- tions are unfounded and cannot be incorporated in the calculation of the cost of decommissioning.
- (E) A problem arises with respect to disposal of CaF_2 . It is not known whether the CaF_2 will be contaminated with uranium. Such contamination would prevent the resale of the CaF_2 and would require that such material be disposed of as low-level waste.
 - (F) There is an even more significant risk that the magnesium difluoride (“ MgF_2 ”) would also be contaminated. The LLNL report states that MgF_2 generated in decommissioning may be contaminated. (§ 6.3.2, at 119). Such contamination would require that such material be disposed of as radioactive waste. Such disposal would raise the cost of decommissioning by more than \$400 million. (See Table 6.17, at 120).
 - (G) LES’s “preferred plausible strategy” for the disposition of depleted UF_6 is the possible sale to a “private sector conversion facility” followed by disposal of deconverted U_3O_8 in a “western U.S. exhausted underground uranium mine.” (ER 4.13-8). Such a conversion strategy cannot be accepted as plausible given that no such conversion facility exists nor is it likely to be built to suit LES’s timing and throughput requirements.
 - (H) The mine disposal option advanced by LES (ER 4.13-11) cannot be considered plausible given the single mine identified in the application opposes use of its property and storage of the waste in a such mine will not be realistically approvable if DUF_6 is not considered low-level waste.
 - (I) The “engineered trench” method of waste disposal proposed by LES is not likely to be acceptable (ER 4.13-11, -19) if DUF_6 is not considered low-level waste.

Id. at 78-80.

B. Contention Amendment/Supplementation

2.6 Thereafter, NIRS/PC filed an October 20, 2004 motion seeking to amend and/or supplement certain of their admitted contentions, including the three safety-related contentions that are the subject of this decision, as follows (newly proffered material appears in **bold**):

NIRS/PC EC-3/TC-1 — DEPLETED URANIUM HEXAFLUORIDE STORAGE AND DISPOSAL

CONTENTION: Petitioners contend that Louisiana Energy Service, L.P., (LES) does not have a sound, reliable, or plausible strategy for private sector disposal of the large amounts of radioactive and hazardous Depleted Uranium Hexafluoride (“ DUF_6 ”) waste that the operation of the plant would produce.

* * * *

- (D) **To show that it has a plausible strategy for disposal of depleted uranium, LES must set forth its strategy in sufficient detail so that the cost of pursuing the strategy can be estimated. LES has failed to set forth the strategy of private conversion and disposal with sufficient specificity. LES relies exclusively upon a cost estimate confirmed by Urenco, which estimate fails to describe any deconversion and disposal process relevant to the NEF, because it involves conversion by a process not planned for use in any United States facility, and it does not involve disposal at all, but only storage of the converted DU_3O_8 .**
- (E) **It is not a plausible strategy for LES to propose to transfer DU to DOE under Sec. 3113 of the USEC Privatization Act, since it appears that the DU from the NEF would not be able to be converted in the DOE plants for several decades, and the cost of such conversion cannot be determined.**

NIRS/PC EC-5/TC-2[] — DECOMMISSIONING COSTS

CONTENTION: Louisiana Energy Services, L.P., (LES) has presented estimates of the costs of decommissioning and funding plan as required by 42 U.S.C. 2243 and 10 C.F.R. 30.35, 40.36, and 70.25 to be included in a license application. *See* Safety Analysis Report 10.0 through 10.3; ER 4.13.1. Petitioners contest the sufficiency of such presentations as based on (1) a contingency factor that is too low; (2) a low estimate of the cost of capital; and (3) an incorrect assumption that the costs are for low-level waste only.

The [Draft Environmental Impact Statement (DEIS)] similarly states that the depleted uranium will be low-level radioactive waste, which is incorrect, and results in an incorrect and low estimate of disposal costs. (DEIS at 2-27, 2-31).

* * * *

NIRS/PC EC-6/TC-3 — COSTS OF MANAGEMENT AND DISPOSAL OF DEPLETED UF_6

CONTENTION: Petitioners contend that the Louisiana Energy Services, L.P., (LES) application seriously underestimates the costs and the feasibility of managing and disposing of the Depleted Uranium Hexafluoride (“ DUF_6 ”) produced in the planned enrichment facility.

* * * *

- (J) **In fact, LES does not have any relevant estimate for the cost of converting and disposing of depleted uranium, because it does not rely upon the three examples cited in the application, i.e., the [Claiborne Enrichment Center (CEC)] estimate from 1993, the LLNL Report,**

or the [Uranium Disposition Services (UDS)] contract. LES would not supply any estimate for dispositioning costs based on commercial contacts. LES refers only to the Urenco data from 2003 for its decommissioning and disposal cost estimate, and Urenco data are not relevant to establishment of costs in the United States.

Licensing Board Memorandum and Order (Ruling on Late-Filed Contentions) (Nov. 22, 2004) at 12, 16 (unpublished) [hereinafter November 2004 Contention Ruling].

2.7 Relative to these NIRS/PC contention amendments, the Board found the proposed amendment to contention NIRS/PC EC-6/TC-3 admissible as sufficient to raise genuine issues of material fact adequate to warrant further inquiry, yet found it more appropriately related to NIRS/PC EC-5/TC-2 and, accordingly, admitted it as a supplement to that contention. *See id.* at 16-17. On the other hand, the Board found inadmissible the proffered amendments to contentions NIRS/PC EC-3/TC-1 and EC-5/TC-2. Paragraphs D and E to contention EC-3/TC-1 were found to have raised economic cost issues outside the scope of the contention, impermissibly challenged Commission regulations, and/or failed to provide adequate factual or expert opinion support. *See id.* at 12-14. The proposed amendment to EC-5/TC-2 once again raised the issue of whether DU constituted low-level waste, and the Board therefore declined to admit it on the ground that the issue was then pending before the Commission, albeit in the context of contention NIRS/PC EC-3/TC-1. *See id.* at 16.

2.8 To reflect these rulings, the Board set forth a revised version of contention NIRS/PC EC-5/TC-2,⁷ which stated:

NIRS/PC EC-5/TC-2[] — DECOMMISSIONING COSTS

CONTENTION: Louisiana Energy Services, L.P., (LES) has presented estimates of the costs of decommissioning and funding plan as required by 42 U.S.C. 2243 and 10 C.F.R. 30.35, 40.36, and 70.25 to be included in a license application. *See* Safety Analysis Report 10.0 through 10.3; ER 4.13.1. Petitioners contest the sufficiency of such presentations as based on (1) a contingency factor that is too low; (2) a low estimate of the cost of capital; (3) an incorrect assumption that the costs are for low-level waste only; and (4) the lack of any relevant estimate of the cost of converting and disposing of depleted uranium, given it does not rely upon the

⁷ Whether and to what degree the AGNM would have had the opportunity to participate relative to the amendment to this contention, or for that matter any future amendments proffered solely by NIRS/PC, is not a matter we need resolve given the AGNM subsequently withdrew from the proceeding. *See infra* note 13.

three examples — the 1993 CEC estimate, the LLNL report, and the UDS contract — cited in its application.

See id., App. A at 2-3.

2.9 On January 18, 2005, the Commission issued its ruling on the Board-referred question as to whether DU constitutes low-level waste, concluding that, consistent with the Low-Level Radioactive Waste Policy Act, DU is properly considered low-level radioactive waste.⁸ *See* CLI-05-5, 61 NRC at 34. With that ruling, the Commission reversed the Board’s admission of paragraph C of contention NIRS/PC EC-3/TC-1. *See id.* at 36.

2.10 On February 2, 2005, NIRS/PC once again filed a motion seeking to amend previously admitted contentions, purportedly on the basis of newly available information stemming from the Commission’s low-level waste ruling in CLI-05-5, as well as a January 7, 2005 LES response to a Staff Request for Additional Information (RAI). *See* Licensing Board Memorandum and Order (Ruling on NIRS/PC Late-Filed Contentions and Providing Administrative Directives) (May 3, 2005) at 4 (unpublished) [hereinafter May 2005 Contention Ruling]. As relevant here, NIRS/PC sought to amend NIRS/PC EC-3/TC-1 and NIRS/PC EC-5/TC-2, as follows (newly proffered material appears in **bold**):

NIRS/PC EC-3/TC-1 — DEPLETED URANIUM HEXAFLUORIDE STORAGE AND DISPOSAL

CONTENTION: Petitioners contend that Louisiana Energy Services, L.P. (LES) does not have a sound, reliable, or plausible strategy for disposal of the large amounts of radioactive and hazardous Depleted Uranium Hexafluoride (“DUF₆”) waste that the operation of the plant would produce in that:

* * * *

- (D) LES has not presented any reasonable or credible plan for deconversion, transportation, and disposal that meets the Commission’s standards for a “plausible strategy.” LES has only stated cost estimates for deconversion, transportation, and disposal, without showing the elements of the plan to which such estimates apply or identifying**

⁸The Commission also noted the narrow scope of its ruling, stating that “the *only* question to be answered is whether depleted uranium is a low-level radioactive waste, not whether it meets one of the particular low-level waste classifications, or whether a near-surface disposal facility will be adequate.” CLI-05-5, 61 NRC 22, 34 (2005). The Commission further made clear that its decision did not resolve the question whether DU from the NEF would meet the 10 C.F.R. Part 61 regulatory requirements for near-surface disposal of that material, and that it “should not be read to intimate any Commission view on this issue, which relates both to the plausibility of LES’s proposed private disposal options, and to financial assurance — issues that remain before the Board” in the context of contentions NIRS/PC EC-5/TC-2 and NIRS/PC EC-6/TC-3. *Id.* at 35 & n.64.

the sources of the estimates. LES has no adequately described decommissioning strategy.

- (E) **Methods of disposal of depleted uranium described by LES or referred to by Commission Staff in the Draft Environmental Impact Statement, such as shallow land disposal or burial in an abandoned mine, do not constitute a plausible strategy, because such proposed methods would fail to meet applicable health requirements, such as the Commission's standards for disposal of low-level radioactive waste.**

NIRS/PC EC-5/TC-2[] — DECOMMISSIONING COSTS

CONTENTION: Louisiana Energy Services, L.P. (LES) has presented estimates of the costs of decommissioning and funding plan as required by 42 U.S.C. 2243 and 10 C.F.R. 30.35, 40.36, and 70.25 to be included in a license application. *See* Safety Analysis Report 10.0 through 10.3; ER 4.13.1. Petitioners contest the sufficiency of such presentations as based on (1) a contingency factor that is too low; (2) a low estimate of the cost of capital; (3) an incorrect assumption that the costs are for low-level waste only; and (4) the lack of any relevant estimate of the cost of converting and disposing of depleted uranium, given it does not rely upon the three examples — the 1993 CEC estimate, the LLNL report, and the UDS contract — cited in its application.

LES has presented additional estimates for the costs of deconversion, transportation, and disposal of depleted uranium for purposes of the decommissioning and funding plan required by 42 USC 2243 and 10 CFR 30.35, 40.36, and 70.25. *See* LES Response to RAI dated January 7, 2005. Such presentations are insufficient and contain no factual bases or documented support. The amounts of the current LES estimates, i.e., \$2.69/kgU for conversion, \$1.14/kgU for disposal, \$0.85/kgU for transportation, and a total of \$5.85/kgU including contingency, are greatly inadequate to achieve safe management and disposal of depleted uranium and cannot be the basis for financial assurance.

Id. at 6, 11-12.

2.11 The Board once again declined to admit any amendment to NIRS/PC EC-3/TC-1 as failing to meet the late-filing criteria and general admissibility requirements set forth in 10 C.F.R. § 2.309(c) and (f), respectively. Specifically, NIRS/PC did not establish good cause to excuse the untimely filing as to either paragraph D or E, in that neither CLI-05-5 nor the LES RAI response provided a basis for those paragraphs and the information actually relied upon had been available to NIRS/PC for some time, and further failed to make a compelling showing as to the remaining late-filing criteria sufficient to outweigh the lack of good cause. *See id.* at 7-8. Even assuming that the proffered amendments were not barred by the fact of their late filing, the Board found paragraph D inadmissible

as raising economic cost issues outside the scope of the contention,⁹ and further determined that paragraph E failed to establish any genuine material dispute with the LES application or the Draft Environmental Impact Statement and sought to raise matters previously rejected by the Board or already admitted in the context of contention NIRS/PC EC-6/TC-3.¹⁰ *See id.* at 9.

2.12 As to the proffered amendment to contention NIRS/PC EC-5/TC-2, the Board found that amendment admissible as supported by basis A to that contention, which relied on new information made available in the LES RAI response, sufficient to raise a genuine issue of material fact adequate to warrant further Board inquiry. *See id.* at 12-13. As to asserted bases B through J, the Board found those were barred by the fact of their late filing as well as substantively inadmissible in that they relied on several posited “disposal scenarios” that conflicted with or contradicted the Commission’s low-level waste ruling in CLI-05-5. *See id.* To reflect those rulings, the Board set forth the following revised version of contention NIRS/PC EC-5/TC-2:

NIRS/PC EC-5/TC-2[] — DECOMMISSIONING COSTS

CONTENTION: Louisiana Energy Services, L.P., (LES) has presented estimates of the costs of decommissioning and funding plan as required by 42 U.S.C. 2243 and 10 C.F.R. 30.35, 40.36, and 70.25 to be included in a license application. *See* Safety Analysis Report 10.0 through 10.3; ER 4.13.1. Petitioners contest the sufficiency of such presentations as based on (1) a contingency factor that is too low; (2) a low estimate of the cost of capital; (3) an incorrect assumption that the costs are for low-level waste only; and (4) the lack of any relevant estimate of the cost of converting and disposing of depleted uranium, given it does not rely upon the three examples — the 1993 CEC estimate, the LLNL report, and the UDS contract — cited in its application.

LES has presented additional estimates for the costs of deconversion, transportation, and disposal of depleted uranium for purposes of the decommissioning and funding plan required by 42 USC 2243 and 10 CFR 30.35, 40.36, and 70.25. *See* LES Response to RAI dated January 7, 2005. Such presentations are insufficient because they contain no factual bases or documented support for the amounts of the following particular current LES estimates, i.e., \$2.69/kgU for conversion,

⁹ More specifically, as the Board noted in the context of its November 2004 ruling on a similar cost-related amendment to this contention proffered by NIRS/PC, while the issues of plausibility and cost are undoubtedly related inquiries, the Board expected to deal thoroughly with cost-related challenges in the context of other admitted NIRS/PC contentions regarding decommissioning funding. *See* November 2004 Contention Ruling at 13.

¹⁰ Relative to contention NIRS/PC EC-3/TC-1, the Board also revised the text of that contention to delete paragraph C to reflect the Commission’s low-level waste ruling in CLI-05-5. *See* May 2005 Contention Ruling at 9.

\$1.14/kgU for disposal, \$0.85/kgU for transportation, and a total of \$5.85/kgU including contingency, and cannot be the basis for financial assurance.

See id., App. A.

2.13 In addition, in Part III of that May 3 contention ruling, the Board directed the parties to address several issues related to case management and other administrative matters pertaining to the conduct of the evidentiary hearing on the safety-related contentions, particularly given the degree of overlap on cost-related and financial assurance matters within those contentions. As is relevant here, the Board requested that the parties determine: (1) an appropriate constant dollar regime (e.g., year 2005 dollars) and waste disposal amounts (e.g., cost per ton) for comparison of cost estimates; and (2) whether, because of the degree of overlap of issues between the contentions, evidentiary presentations on those contentions might be consolidated to address those cross-cutting issues. *See* May 2005 Contention Ruling at 15-17. On May 23, 2005, the parties filed a joint report indicating, among other things, that evidentiary presentations on those financial assurance-related contentions would be consolidated to the extent practicable, *see* Joint Report in Response to the Licensing Board’s May 3, 2005 Administrative Directives (May 23, 2005) at 5, and that the parties intended to present their cost-related testimony “principally in terms of the unit cost of dispositioning NEF-generated depleted uranium, stated in year 2004 dollars per kilogram of depleted uranium (kgU),” *id.* at 2.¹¹

2.14 Thereafter, on May 16, 2005, NIRS/PC filed two separate motions, again seeking admission of amendments to contentions NIRS/PC EC-3/TC-1 and EC-5/TC-2, asserting that continuing disclosures by LES, including a memorandum of agreement (MOA) between LES and Waste Control Specialists (WCS) regarding LES’s strategy for disposal of DU, provided new information on which their proffered amendments appropriately were based. *See* Licensing Board Memorandum and Order (Ruling on NIRS/PC Late-Filed Contention Amendments) (June 30, 2005) at 4-5 (unpublished) [hereinafter June 2005 Contention Ruling]. In addition, on May 20, 2005, NIRS/PC filed a second motion for the admission of additional bases in support of the amendment to NIRS/PC EC-5/TC-2 proffered in their May 16 motion. *See id.* at 4-5. Specifically, NIRS/PC sought to amend those contentions as follows (newly proffered material appears in **bold**):

NIRS/PC EC-3/TC-1 — DEPLETED URANIUM HEXAFLUORIDE STORAGE AND DISPOSAL

CONTENTION: Petitioners contend that Louisiana Energy Services,

¹¹ In addition, in that joint report NIRS/PC counsel notified the Board that NIRS/PC were withdrawing from the proceeding contention NIRS/PC TC-6. *See* May 2005 Contention Ruling at 5.

L.P. (LES) does not have a sound, reliable, or plausible strategy for disposal of the large amounts of radioactive and hazardous Depleted Uranium Hexafluoride (“DUF₆”) waste that the operation of the plant would produce in that:

* * * *

- (C) **The disclosure by LES that it now apparently plans to dispose of depleted U₃O₈ in the near-surface disposal site of Waste Control Specialists (“WCS”) indicates that LES has chosen a disposal strategy that the Commission could not consider plausible, because the application filed by WCS for a license to dispose of low-level radioactive waste does not consider the disposal of bulk DU₃O₈, and shows that WCS lacks the necessary understanding of uranium to enable it to project the performance of a nuclear waste disposal site, to manage uranium bearing wastes, or even to accept waste in a reliable and safe manner that would ensure that WCS understood that the shipments were in compliance with waste acceptance criteria and that the waste did not contain non-permitted materials.**

NIRS/PC EC-5/TC-2[] — DECOMMISSIONING COSTS

CONTENTION: Louisiana Energy Services, L.P. (LES) has presented estimates of the costs of decommissioning and funding plan as required by 42 U.S.C. 2243 and 10 C.F.R. 30.35, 40.36, and 70.25 to be included in a license application. See Safety Analysis Report 10.0 through 10.3; ER 4.13.1. Petitioners contest the sufficiency of such presentations as based on (1) a contingency factor that is too low; (2) a low estimate of the cost of capital; (3) an incorrect assumption that the costs are for low-level waste only; and (4) the lack of any relevant estimate of the cost of converting and disposing of depleted uranium, given it does not rely upon the three examples — the 1993 CEC estimate, the LLNL report, and the UDS contract — cited in its application.

LES has presented additional estimates for the costs of deconversion, transportation, and disposal of depleted uranium for purposes of the decommissioning and funding plan required by 42 USC 2243 and 10 CFR 30.35, 40.36, and 70.25. See LES Response to RAI dated January 7, 2005. Such presentations are insufficient because they contain no factual bases or documented support for the amounts of the following particular current LES estimates, i.e., \$2.69/kgU for conversion, \$1.14/kgU for disposal, \$0.85/kgU for transportation, and a total of \$5.85/kgU including contingency, and cannot be the basis for financial assurance.

Since January 7, 2005, LES has presented additional material to the Commission Staff concerning the costs of dispositioning of depleted uranium. However, the supplemental material fails to explain or support the cost estimates offered by LES. LES has not shown that its cost estimates account for several factors that must be considered in estimating the cost of dispositioning of depleted uranium, including the likely unsuitability of depleted uranium

for near-surface disposal, scaling of cost estimates to fit facilities that would meet the needs of the NEF, exchange rate uncertainties, emerging scientific information on potential uranium risks, and licensing delays.

Id. at 7, 13.

2.15 After receiving responses from LES and the Staff as to the admissibility of the proffered contention amendments, the Board issued a June 30, 2005 ruling in which it declined to admit these requested amendments to either contention NIRS/PC EC-3/TC-1 or contention NIRS/PC EC-5/TC-2. As to EC-3/TC-1, the Board found that it was barred by its nontimely filing, in that, among other things, the MOA between LES and WCS was the only document that legitimately related to the proposed amendment, and that document became available well before the date of NIRS/PC's motion to amend that contention. *See id.* at 8-9. The Board further found that even if the amendment were not barred by its late filing, because the proffered amendment contested the sufficiency of a WCS license application seeking to dispose of low-level radioactive waste that was properly before the Texas Commission on Environmental Quality (TCEQ), the Board does not have jurisdiction over that application and hence its sufficiency is a matter outside the scope of this proceeding.¹² *See id.* at 10-11. Finally, the Board noted that the potential use of WCS as a disposal site and the related cost estimates on which LES relied to support its own decommissioning cost estimates were certainly relevant in the context of admitted contention NIRS/PC EC-5/TC-2 given the close relationship between the requirement that LES demonstrate a "plausible strategy" for disposal and the costs associated with decommissioning funding. *See id.* at 12.

2.16 With regard to the proposed amendment to contention NIRS/PC EC-5/TC-2, the Board determined that to the degree it related to material matters within the scope of the proceeding, the amendment did not add anything to the previously admitted contention that required rewording of the contention. *See id.* at 14. In other words, because the Board had previously admitted an amendment to EC-5/TC-2 alleging a lack of support for LES cost estimates for deconversion, transportation, and disposal of DU from the NEF relative to its decommissioning funding plan, it would consider any relevant information placed before it on the

¹²The Board also noted that although contention EC-3/TC-1 concerned LES's potential private strategies for disposal by two companies — ConverDyn and COGEMA — that LES expressly relied on to support its Environmental Report—espoused "preferred option" for private sector dispositioning of the DU waste from the NEF, to the Board's knowledge neither of those options had been further developed by LES, nor did the Staff rely on or discuss either of those options in its Final Environmental Impact Statement. *See* June 2005 Contention Ruling at 11-12. The Board therefore directed LES to provide the Board with a filing indicating whether it continued to rely on the ConverDyn or COGEMA disposal options as a basis for its required plausible strategy showing. *See id.* at 12. We discuss this issue further *infra* at note 15.

matters raised by that contention without the need for further modification. *See id.* at 14-15. The Board also made clear, however, that to the extent the proffered amendment to EC-5/TC-2 raised issues that the Board had previously determined were not admissible, those matters would not be litigable in the context of that contention.¹³ *See id.* at 14 & n.13.

¹³ Apparently contemporaneously with the Board's consideration of these latest NIRS/PC motions to amend certain of their previously admitted safety-related contentions, LES and the two New Mexico state governmental parties were in the midst of concluding settlement negotiations. On June 23, 2005, NMED, the AGNM, and LES filed with the Board a joint motion requesting approval of a settlement agreement between those parties, and asking the Board to accept the withdrawal of NMED and the AGNM from the proceeding and to dismiss the admitted contentions sponsored by those parties, namely NMED TC-3/EC-4, AGNM TC-i, and AGNM TC-ii. *See* Joint Motion for Approval of Settlement Agreement (June 23, 2005) [hereinafter First Settlement Motion]. Under the terms of the proposed agreement, LES generally agreed to (1) add certain license conditions to any NEF license that would, among other things, place time and quantity limitations on the storage and/or disposal of depleted uranium hexafluoride (DUF_6) generated at the proposed NEF; (2) limitations regarding financial assurance required for the disposition of the DUF_6 , including the decommissioning cost estimate; and (3) permit, under certain specified conditions, NMED's participation in NRC-led inspections of the NEF's radiation protection program. *See id.* at 1-2.

In a July 5, 2005 response to the settlement motion, the Staff requested that the Board not approve the agreement based on the Staff's view that the settlement agreement did not represent all affected parties because its consent and approval was not obtained, and because the agreement included unenforceable conditions to the NEF license. *See* Licensing Board Memorandum and Order (Approving Settlement Agreement and Accepting Withdrawal of Parties) (Aug. 12, 2005) at 2. In their response that same day, NIRS/PC did not expressly object to the terms of the proposed settlement, but requested that the Board consider the Staff's objections and further ensure that NIRS/PC's interests would not be affected by any settlement agreement between other parties to the litigation. *See id.*

Thereafter, with the Board's leave, the parties attempted to resolve the Staff's concerns and on July 27, 2005, NMED, the AGNM, and LES filed a joint motion requesting approval of a revised settlement agreement, which the Staff indicated in a July 29, 2005 response addressed its previously expressed concerns. *See id.* According to the Staff the agreement (1) assured the agreed-upon license conditions would be enforceable by the NRC and are sufficiently unambiguous and specific to permit NRC inspectors to determine whether LES is in compliance with a particular condition; and (2) made clear the NRC only has the authority to enforce the terms of any NEF license and the conditions thereto, not the terms of any agreement between LES and the New Mexico parties. *See id.* at 6. In addition, the Staff noted that under the revised settlement agreement terms, any access by NMED to the NEF for inspection purposes is permitted only to the extent allowed by a specific agreement between the NRC and the State of New Mexico. *See id.* For their part, NIRS/PC in their August 1, 2005 response repeated their belief that the revised settlement agreement did not facially prejudice NIRS/PC, but requested that the Board ensure that their interests would not be impacted by the settlement agreement and, further, that the agreement would not restrict the authority of any State of New Mexico agency to raise future issues relative to the proposed NEF. *See id.* at 7.

The Board subsequently issued an August 12, 2005 memorandum and order in which, finding its actions in the public interest, it (1) approved the settlement agreement; (2) accepted the withdrawal of NMED and the AGNM from the proceeding; (3) dismissed admitted NMED and AGNM contentions NMED TC-3/EC-4 – Radiation Protection Program, and AGNM TC-ii – Disposal Cost Estimates from

(Continued)

2.17 Following Staff issuance on June 15, 2005, of its Final Environmental Impact Statement (FEIS) for the NEF, NIRS/PC once again filed a motion, dated July 5, 2005, requesting that the Board admit amendments to contentions NIRS/PC EC-3/TC-1 and EC-5/TC-2, as well as a new contention NIRS/PC EC-9 that challenged the Staff's evaluation in the FEIS of DU disposal impacts. *See* Licensing Board Memorandum and Order (Ruling on Motion To Admit Late-Filed Amended and Supplemental Contentions) (Aug. 4, 2005) at 5-6 (unpublished) [hereinafter August 2005 Contention Ruling]. In essence, the proffered amendments to EC-3/TC-1 and EC-5/TC-2 raised similar issues to those previously brought before the Board in the context of, variously, NIRS/PC's October 2004, February 2005, and May 2005 contention motions, including presenting challenges to the WCS application pending before the TCEQ; the viability of Envirocare of Utah, a licensed low-level waste disposal facility, as a disposal site for DU from the NEF; and the adequacy of LES's consideration of certain factors in calculating its decommissioning cost estimates. *See id.* at 8-9, 14-16. The proposed amendment to EC-5/TC-2 also raised for the first time, however, the issue of the adequacy of dispositioning cost estimates provided by DOE to LES. *See id.* at 15-16. Contention EC-9, on the other hand, asserted claims that had been previously raised in the context of admitted contention NIRS/PC EC-4 — Impacts of Waste Storage and Disposal, namely that the Staff's analysis in the FEIS of the impacts of DU disposal was inadequate.¹⁴ *See id.* at 22-23.

2.18 In a memorandum and order issued August 4, 2005, the Board found, in sum, each of the amendments to EC-3/TC-1 and EC-5/TC-2, as well as new contention EC-9, inadmissible because, to the extent they were not barred by their late filing under section 2.309(c), each of the proffered challenges failed to satisfy the substantive admissibility standards of section 2.309(f). *See id.* at 27. Specifically, as to EC-3/TC-1, proffered paragraph D once again challenged the sufficiency of the WCS application, a matter the Board found to be outside its jurisdiction and, accordingly, outside the scope of the proceeding, while paragraph E was found impermissibly to challenge Commission regulations and/or failed to contain adequate factual or expert opinion support. *See id.* at

the proceeding; and (4) modified contention NIRS/PC EC-5/TC-2; AGNM TC-i – Decommissioning Costs, to delete the words “AGNM TC-i” from the contention's title. *See id.* at 7-8. A copy of the settlement agreement is included as an attachment to that Board memorandum and order. *See id.*, Attachment.

¹⁴The Board ruled on a majority of the substantive issues raised by proffered contention NIRS/PC EC-9 in the context of its second partial initial decision relative to contention NIRS/PC EC-4, as remanded. *See* LBP-06-8, 63 NRC at 269-87.

12-13.¹⁵ Relative to EC-5/TC-2, the Board concluded paragraphs C and D raised issues that had previously been admitted to the proceeding and so did not require further revision of the contention, or reiterated matters the Board had previously rejected as inadmissible on various grounds, such as issues related to the WCS application and to the appropriate contingency factor to be applied to the LES decommissioning cost estimate. *See id.* at 19-21. In addition, because LES need only present one “plausible strategy,” the Board found the particular suitability of the WCS or Envirocare facilities outside the scope of the proceeding. *See id.* at 20. As to the portion of proffered paragraph C and paragraph E, in its entirety, that challenged the cost estimates and supporting information provided by DOE to LES, the Board found those matters were not subject to challenge in this proceeding given that DOE is statutorily obligated by section 3113 of the USEC Privatization Act, 42 U.S.C. § 2297h-11, to accept DU waste from the NEF at LES’s request and can set a rate of reimbursement for such disposal at whatever level it deems appropriate. *See id.* at 21-22. Finally, as to NIRS/PC EC-9, which ultimately challenged the purported lack of a site-specific NEPA-related impacts analysis of the WCS and Envirocare sites, the Board found that matter outside the scope of the proceeding and thus not material in that such a review should appropriately be conducted in connection with the license application for the specific disposal facility.¹⁶ *See id.* at 25-26.

C. Contention Merits Adjudication

2.19 Several days after this final Board ruling regarding contentions admissibility, in an effort to streamline the upcoming evidentiary hearing on the

¹⁵Noting that, based on a July 25, 2005 LES clarification regarding its private sector “plausible strategy,” LES no longer intended to rely on the “ConverDyn” geologic repository option that was the subject of paragraph A of this contention as originally admitted, *see* Final Response of [LES] to Licensing Board Request for Clarification Regarding Applicant’s Private Sector “Plausible Strategy” for Disposition of Depleted Uranium (July 25, 2005) at 2, the Board dismissed that portion of the contention as moot and revised the contention to read:

NIRS/PC EC-3/TC-1 — DEPLETED URANIUM HEXAFLUORIDE STORAGE AND DISPOSAL

CONTENTION: Petitioners contend that Louisiana Energy Service, L.P., (LES) does not have a sound, reliable, or plausible strategy for private sector disposal of the large amounts of radioactive and hazardous Depleted Uranium Hexafluoride (“DUF₆”) waste that the operation of the plant would produce in that the statement that “discussions have recently been held with [COGEMA] concerning a private conversion facility” (ER 4.13-8) is without substance.

August 2005 Contention Ruling, App. A.

¹⁶Although the Board referred its rulings on each of the proffered challenges to the Commission pursuant to 10 C.F.R. § 2.323(f), in an October 19, 2005 memorandum and order, the Commission declined review of those Board-referred matters. *See* CLI-05-21, 62 NRC 538 (2005).

remaining contested issues in this proceeding, LES and NIRS/PC submitted a joint stipulation with respect to contentions NIRS/PC EC-5/TC-2 and EC-6/TC-3. Specifically, those parties agreed that NIRS/PC would withdraw: (1) subparts one, two, and three of the first paragraph of contention NIRS/PC EC-5/TC-2, except that the first clause was withdrawn “only to the extent that it challenges the adequacy of the 25% contingency factor applied by LES to its estimated *facility* decommissioning costs,” but not as to its adequacy as applied to LES’s DU disposition costs; and (2) paragraphs A, B, C, D, and H of contention NIRS/PC EC-6/TC-3, i.e., leaving only paragraphs E, G, and I in contest, given NIRS/PC had withdrawn paragraph F in the context of a prior stipulation.¹⁷ See Stipulation Between [LES] and NIRS/PC Concerning Contentions NIRS/PC EC-5/TC-2 and NIRS/PC EC-6/TC-3 (Aug. 11, 2005) at 2 & n.2 (citing Stipulation Between [LES] and [NIRS/PC] Concerning Contention NIRS/PC EC-6/TC-3) [hereinafter August 2005 Stipulation].

2.20 Thereafter, on September 15, 2005, NIRS/PC and the Staff, and on September 16, 2005, LES, filed with the Board prefiled direct testimony relative to four general subject matter areas: (1) deconversion plausibility and cost; (2) transportation cost; (3) disposal plausibility and cost; and (4) contingency factor.¹⁸ In response to the NIRS/PC prefiled direct testimony, LES and the Staff filed motions in limine seeking to exclude portions of the prefiled testimony of NIRS/PC witness Dr. Arjun Makhijani and, for its part, LES renewing an August 31, 2005 motion to dismiss contention NIRS/PC EC-3/TC-1 in its entirety and to dismiss the portion of NIRS/PC EC-5/TC-2 that challenged the adequacy of the contingency factor applied to LES’s dispositioning cost estimate for DUF₆. See Licensing Board Memorandum and Order (Ruling on In Limine Motions and Motion To Dismiss) (Oct. 4, 2005) at 1-2 (unpublished). The Board declined to dismiss any of NIRS/PC’s contentions or portions thereof, but ruled in favor of

¹⁷ In return, LES agreed that it would not (1) rely on the mine disposal option to demonstrate its private sector strategy; (2) adduce as evidence, relative to its disposition cost estimate, cost information from the *CEC* proceeding, the 1997 LLNL report, or the UDS contract; (3) in presenting cost estimates for facility decommissioning, take credit for any salvage value of materials; and (4) in presenting its deconversion cost estimate, take credit for any sales of byproducts, such as calcium fluoride. See Stipulation Between [LES] and NIRS/PC Concerning Contentions NIRS/PC EC-5/TC-2 and NIRS/PC EC-6/TC-3 (Aug. 11, 2005) at 1-2. In addition, NIRS/PC agreed that they would not challenge the adequacy of LES’s cost estimate for NEF facility decommissioning (as opposed to dispositioning NEF-related DU). See *id.* at 2.

¹⁸ Because of the degree of overlap and interrelation between the three remaining contentions, the parties proposed to present, and the Board agreed to hear, testimony and evidence using a topical subject matter approach rather than contention by contention. See Licensing Board Memorandum and Order (Regarding Administrative Matters Relative to October 2005 Evidentiary Hearing) (Sept. 14, 2005) at 1-2 (unpublished).

striking certain portions of Dr. Makhijani's prefiled direct testimony to the degree it fell outside the scope of any admitted contention. *See id.* at 2-17.

2.21 On October 11, 2005, NIRS/PC, LES, and the Staff submitted prefiled rebuttal testimony as to each identified subject matter area and, in addition, NIRS/PC filed revised versions of Dr. Makhijani's prefiled direct testimony pursuant to the Board's October 4 in limine rulings. Thereafter, LES and the Staff each filed a motion seeking exclusion of certain exhibits purportedly relevant to Dr. Makhijani's prefiled direct testimony, and subsequently filed in limine motions relative to Dr. Makhijani's prefiled rebuttal testimony and associated evidentiary materials. On October 20, 2005, the Board granted the motions relative to Dr. Makhijani's prefiled rebuttal testimony in part, striking those portions of his testimony that fell outside the scope of any admitted contention and/or the permissible scope of rebuttal testimony. *See* Licensing Board Memorandum and Order (Ruling on In Limine Motions Regarding Prefiled Exhibits and Rebuttal Testimony) (Oct. 20, 2005) at 2-7 (unpublished). With regard to the NIRS/PC prefiled exhibits, the Board essentially ruled that any exhibits not cited in Dr. Makhijani's prefiled direct or rebuttal testimony would not be admitted in support of that testimony, but could feasibly be used for the purposes of cross-examination or oral surrebuttal testimony. *See id.* at 8-9.

2.22 On October 24-27, 2005, the Board held the scheduled evidentiary hearing on the remaining admitted NIRS/PC contentions,¹⁹ *see* Tr. at 1738-3179, and on November 30, 2005, pursuant to 10 C.F.R. § 2.712 and the general schedule set forth in an August 12, 2005 Board issuance, *see* Licensing Board Memorandum and Order (Memorializing Results of Prehearing Conference) (Aug. 12, 2005) at 3 (unpublished), LES, the Staff, and NIRS/PC filed proposed findings of fact and conclusions of law regarding the contentions litigated at that hearing. *See* Proposed Findings of Fact and Conclusions of Law Submitted on Behalf of Intervenors [NIRS/PC] Based Upon Evidence Taken on October 24-27, 2005 (Nov. 30, 2005) [hereinafter NIRS/PC Proposed Findings]; [LES] Proposed Findings of Fact and Conclusions of Law Concerning Contentions NIRS/PC EC-3/TC-1, EC-5/TC-2, EC-6/TC-3, and EC-4 (as Remanded) (Nov. 30, 2005) [hereinafter LES Proposed Findings]; NRC Staff's Proposed Finding of Fact and Conclusions of Law Concerning NIRS/PC Contentions [EC-3/TC-1], [EC-5/TC-2], [EC-6/TC-3], and [EC-4] (Nov. 30, 2005) [hereinafter Staff Proposed Findings]. Thereafter, each of the parties similarly filed reply findings of fact and conclusions of law in accordance with the Board's schedule, in which each party responded to the proposed findings and conclusions proffered by the other parties. *See* [LES] Reply Findings of Fact and Conclusions of Law

¹⁹The Board also heard evidentiary presentations relative to remanded contention NIRS/PC EC-4, a matter we discussed in detail in our second partial initial decision. *See* LBP-06-8, 63 NRC at 255-56, 270-71.

Concerning Contentions NIRS/PC EC-3/TC-1, EC-5/TC-2, EC-6/TC-3, and EC-4 (as Remanded) (Dec. 23, 2005) [hereinafter LES Reply Findings]; Reply Proposed Findings of Fact and Conclusions of Law Submitted on Behalf of Intervenor [NIRS/PC] Based upon Evidence Taken on October 24-27, 2005 (Dec. 22, 2005) [hereinafter NIRS/PC Reply Findings]; NRC Staff Reply Findings of Fact Concerning NIRS/PC Contentions [EC-3/TC-1], [EC-5/TC-2], [EC-6/TC-3], and [EC-4] (Dec. 22, 2005) [hereinafter Staff Reply Findings].

2.23 Following the October evidentiary hearing, LES submitted a letter dated November 23, 2005, to the Staff providing additional clarifying information on two cost-related issues raised during the hearing, namely the potential costs of managing empty DUF₆ cylinders and the manner in which LES accounted for the cost of capital associated with construction of a deconversion facility. *See* Licensing Board Memorandum and Order (Ruling on Motion To Supplement Record) (Dec. 13, 2005) at 1 (unpublished) [hereinafter Record Supplementation Ruling]. LES subsequently filed a motion with the Board, seeking to supplement the evidentiary record of the October hearing with a copy of that November 23 letter, denominated LES Exhibit 118. *See id.* The Staff did not object to LES's motion, but NIRS/PC objected on the grounds that they had not been provided an opportunity to challenge the sufficiency or validity of the information offered by LES. *See id.* at 1-2. The Board agreed that fairness dictated that NIRS/PC should have an opportunity to contest the newly proffered material via their own testimony and evidentiary material and through cross-examination of LES and Staff witnesses, and established a schedule relative to a supplemental evidentiary hearing that was ultimately held on February 13, 2006. *See id.* at 3-4; *see also* Tr. at 3255-3498.

2.24 Prior to the February supplemental hearing, the parties filed another round of prefiled direct testimony relative to the two cost-related matters at issue, which LES followed with a motion in limine relative to NIRS/PC witness Makhijani's testimony seeking to strike portions of that testimony as outside the scope of the issues for the supplemental hearing, *see* Licensing Board Memorandum and Order (Ruling on In Limine Motion) (Jan. 11, 2006) at 1 (unpublished). In its January 11, 2006 ruling on the motion, the Board granted in part LES's motion relative to Dr. Makhijani's testimony on the cost of capital issue, but declined to strike any of the testimony related to cylinder management. *See id.* at 3-7. Thereafter, LES, the Staff, and NIRS/PC submitted prefiled rebuttal testimony, and NIRS/PC also filed a revised version of Dr. Makhijani's prefiled direct testimony to reflect the Board's in limine rulings. LES again moved to exclude as irrelevant portions of Dr. Makhijani's prefiled rebuttal testimony, a motion that the Board granted in part. *See* Licensing Board Memorandum and Order (Ruling on In Limine Motion) (Jan. 25, 2006) (unpublished). As noted above, the Board subsequently conducted a 1-day supplemental evidentiary hearing on the cost of capital and cylinder management issues. *See* Tr. at 3255-3498.

2.25 Finally, on February 28 and March 1, 2006, NIRS/PC, and LES and the Staff, respectively, filed supplemental proposed findings of fact and conclusions of law relative to the issues litigated at the February 2006 hearing, *see* Proposed Findings of Fact and Conclusions of Law Submitted on Behalf of Intervenor [NIRS/PC] Based upon Evidence Taken on February 13, 2006 (Cost of Capital, Cylinder Management) (Feb. 28, 2006) [hereinafter NIRS/PC Supplemental Proposed Findings]; [LES] Proposed Findings of Fact and Conclusions of Law Concerning Cost of Cylinder Management and Cost of Capital Issues (Mar. 1, 2006); NRC Staff's Proposed Findings of Fact and Conclusions of Law Concerning Clarifying Information Relating to the Cost Estimate of Deconversion (Mar. 1, 2006), followed by reply findings of fact and conclusions of law, *see* [LES] Reply Findings of Fact and Conclusions of Law Concerning Cost of Cylinder Management and Cost of Capital Issues (Mar. 17, 2006) [LES Supplemental Reply Findings]; NRC Staff's Reply Findings of Fact and Conclusions of Law Concerning Clarifying Information Relating to the Cost Estimate of Deconversion (Mar. 17, 2006); Reply Proposed Findings of Fact and Conclusions of Law Submitted on Behalf of Intervenor [NIRS/PC] Based upon Evidence Taken on February 13, 2006 (Cost of Capital, Cylinder Management) (Mar. 17, 2006). Finally, on March 13, 2006, the Board issued a memorandum and order adopting certain corrections to the February 13, 2006 transcript, placing on the record publicly available versions of that transcript and some associated evidentiary materials, and closing the evidentiary record on contested matters as of the date of that order.²⁰ *See* Licensing Board Memorandum and Order (Regarding Transcript Corrections; Public Availability of February 2006 Hearing Transcript and Exhibits; Closing Record of October 2005 and February 2006 Evidentiary Hearings) (Mar. 13, 2006) (unpublished).

III. APPLICABLE LEGAL STANDARDS

A. Decommissioning Funding Plan Requirements

3.1 The NRC's regulations require an applicant seeking a license to construct and operate a uranium enrichment facility to submit with its license application a

²⁰The Board previously had adopted corrections to the transcript of the October 2005 evidentiary hearing, *see* Licensing Board Memorandum and Order (Adopting Transcript Corrections and Addressing Other Administrative Matters) (Nov. 29, 2005) at 1 (unpublished), and released publicly available versions of the transcripts and some exhibits associated with those sessions, *see* Licensing Board Memorandum (Public Availability of Previously Withheld Transcripts and Exhibits from October 2005 Evidentiary Hearing) (Jan. 9, 2006) at 1-2 (unpublished).

proposed decommissioning funding plan. *See* 10 C.F.R. §§ 70.22(a)(9), 70.25(a).²¹ The general purpose of the DFP is to ensure the applicant has considered the decommissioning activities that may be required over time, has presented a credible, site-specific cost estimate for conducting those activities, and has provided the NRC with financial assurance to cover those estimated costs should a third party have to take responsibility for decommissioning. *See* LES Exh. 81, at 10-1 (NUREG-1520, Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility, abstract & ch. 10 (Mar. 2002)) [hereinafter SRP].

3.2 Specifically, 10 C.F.R. § 70.25(e) requires that a DFP “contain a cost estimate for decommissioning and a description of the method of assuring funds for decommissioning . . . including means for adjusting cost estimates and associated funding levels periodically over the life of the facility.” Cost estimates must be adjusted at least once every 3 years. *See id.* Further, the DFP must provide a certification that financial assurance for decommissioning the facility has been provided in an amount equal to the decommissioning cost estimate, as well as a signed original or appropriate duplicate of the funding instrument whereby the applicant will provide financial assurance. *See id.* Section 70.25(f) discusses the methods by which financial assurance may be provided in the case of a private applicant, namely (1) prepayment into a segregated account, e.g., a trust or escrow account, prior to the start of facility operations; (2) a surety method, insurance, or other guarantee method; or (3) an external sinking fund, such as a trust or escrow account, into which annual deposits are made, coupled with a surety method or insurance, whereby the surety value decreases over time by the amount accrued in the sinking fund. *See id.* § 70.25(f)(1)-(3).²²

3.3 As noted above, section 70.25 requires an applicant to adjust its cost estimates and associated financial assurance levels at least triennially. In response to public comments regarding the need for periodic adjustments, the Commission noted that such updates “will help ensure that financial assurance obtained by licensees will not become inadequate as a result of changing disposal prices or

²¹ Sections 30.35 and 40.36 of 10 C.F.R. impose the same or substantially similar requirements on applicants for a license to possess and use byproduct material and source material, respectively, in excess of certain quantities.

²² By way of background, we note that LES intends to utilize a surety bond instrument whereby payment is guaranteed by a qualified third party, and has submitted draft copies of the surety bond and associated information to the NRC, of which signed originals will be provided to the NRC before LES can receive licensed materials at the NEF. *See* LES Exh. 83, at 10.2-1 & Apps. 10A to 10F ([NEF SAR], ch. 10 (May 2005)). Although the adequacy of LES’s financial instrument is not at issue in the contested portion of the proceeding, it will be discussed in more detail in the context of the Board’s forthcoming decision relative to uncontested matters that were raised in the context of the “mandatory” hearing on the LES application. *See* Licensing Board Memorandum and Order (Regarding NIRS/PC Motion for Leave To Participate in Mandatory Hearing) (Feb. 24, 2006) at 4-5 (unpublished).

other factors,” such as inflation or changes in the scope of operations. *See* 68 Fed. Reg. 57,327, 57,332 (Oct. 3, 2003). Therefore, the triennial adjustments are intended to account for changes in a licensee’s cost estimates regardless of the cause, and to ensure that adequate financial assurance is provided by the licensee at any given time.²³ To be sure, the initial cost estimates provided in an applicant’s DFP must encompass those foreseeable activities associated with decommissioning the site, including disposing of any waste produced, and must present a reasonably accurate estimate of the direct and indirect costs involved in decommissioning under routine facility conditions. *See* SRP at 10-1; LES Exh. 82, at 4-9, A-26 (NUREG-1757, “Consolidated NMSS Decommissioning Guidance,” Vol. 3, at 4-1 to 4-11, A-25 to A-30 (Sept. 2003)) [hereinafter NUREG-1757]. Thus, the availability of the periodic adjustment mechanism should have no bearing on the robustness of the initial cost estimate, in that it is not meant to provide a backstop for underestimation, but rather to account for costs unforeseen at the time of licensing.

3.4 Staff guidance documents generally do not constitute legally binding interpretations of agency regulations. *See Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-33, 60 NRC 581, 596 (2004). In this instance, however, we find NUREG-1757, “Consolidated NMSS Decommissioning Guidance,” particularly instructive as it provides guidance to the Staff and applicants/licensees regarding, among other things, financial assurance and decommissioning cost estimates.²⁴ The Staff reviews an applicant’s cost estimate to ensure that estimate is “based on documented and reasonable assumptions” and so will provide sufficient funds to allow an independent third party to take responsibility for decommissioning the facility if the licensee is unable to do so. *See* NUREG-1757, at 4-9. As is relevant here, section 4.1 sets forth specific minimum criteria that a cost estimate must meet before the Staff can find it acceptable. Specifically, NUREG-1757 states that the cost estimate must:

- (1) meet all applicable regulatory requirements (e.g., 10 C.F.R. § 70.25(e));

²³ As we discuss further below, *see, e.g., infra* p. 680, LES has agreed to a license condition whereby it would adjust its cost estimates relative to facility decommissioning on a triennial basis, but has committed to update annually its cost estimates for DU dispositioning. *See, e.g.,* Prefiled Rebuttal Testimony of Rod Krich, Paul Harding and Paul Schneider on Behalf of [LES] Regarding Applicant’s Strategy and Cost Estimate for the Private Sector Deconversion of [DUF₆] (fol. Tr. at 1840) at 14; Prefiled Rebuttal Testimony of Rod Krich and Thomas Laguardia on Behalf of [LES] Regarding the Adequacy of Applicant’s Contingency Factor (fol. Tr. at 3097) at 5-6; Staff Exh. 37, at 10-15 (NUREG-1827, “Safety Evaluation Report for the [NEF] in Lea County, New Mexico,” ch. 10 (June 2005)).

²⁴ NUREG-1757 replaces NUREG-1727 (NMSS Decommissioning Standard Review Plan) and NUREG/BR-0241 (NMSS Handbook for Decommissioning Fuel Cycle and Materials Licensees). *See* NUREG-1757, at iii.

- (2) be based on documented and reasonable assumptions;
- (3) use unit cost factors that are reasonable and consistent with NRC cost estimation reference documents;
- (4) include costs for labor, equipment and supplies, overhead and contractor profit, sampling and laboratory analysis, and other miscellaneous expenses (e.g., license fees, insurance, and taxes);
- (5) apply a contingency factor of at least 25 percent to the sum of all estimated costs;
- (6) take no credit for (a) any salvage value from the sale of potential assets during or after decommissioning, or (b) reduced taxes based on payment of decommissioning or site control and maintenance costs;
- (7) identify adequate means for adjusting the cost estimate and associated funding level over the life of the facility, as well as any storage or surveillance period;
- (8) reflect decommissioning under normal facility conditions; and
- (9) include costs for all major decommissioning and site control and maintenance activities, including (a) planning and preparation, (b) decontamination and/or dismantling of facility components, (c) packaging, shipment, and disposal of radioactive wastes, (d) a final radiation survey, (e) restoration of contaminated areas on facility grounds, if necessary, and (f) site stabilization and long-term surveillance, if necessary.

See id. at 4-10. Relative to the financial assurance mechanisms required as part of the DFP, the Staff will review those items for adequacy, specifically (1) determining whether the proposed mechanisms are acceptable; and (2) reviewing the certification of financial assurance to ensure it specifies the correct amount of financial assurance and attests to compliance with the appropriate regulatory requirements. *See id.* at 4-6.

3.5 In addition, certain licensees, including LES should the NEF be issued a license, at the end of a facility's license period are required to submit a decommissioning plan (DP) for Staff approval prior to beginning decommissioning activities. The purpose of the DP is in part to ensure that, as is envisioned in the DFP, the licensee has maintained adequate funding and financial assurance through the term of the license. *See id.* at 4-4. A DP must include (1) an updated, detailed cost estimate for decommissioning; (2) a comparison of that estimate with the amount of funds presently set aside for decommissioning; and (3) a plan for assuring the availability of adequate funds to complete decommissioning activities. *See id.* at 4-5. In addition, the DP must provide for at least one financial assurance mechanism, including supporting documentation, that the Staff will again review for adequacy. *See id.* at 4-6.

B. Plausible Strategy Demonstration

3.6 In its January 30, 2004 notice of hearing on the LES application, the Commission noted that if DUF_6 waste from the NEF

meets the definition of “waste” in 10 CFR 61.2, the depleted tails are to be considered low-level radioactive waste within the meaning of 10 CFR Part 61 in which case an approach by LES to transfer to DOE for disposal by DOE of LES’ depleted tails pursuant to Section 3113 of the USEC Privatization Act constitutes a “plausible strategy” for dispositioning the LES depleted tails.

69 Fed. Reg. at 5877. The Commission further elaborated on this “plausible strategy” concept in CLI-04-25, stating that “[w]hile a ‘plausible strategy’ for private conversion of the tails does not mean a definite or certain strategy, to include completion of all necessary contractual arrangements, it must represent more than mere speculation.” See CLI-04-25, 60 NRC 223, 226 (2004).²⁵

3.7 The concept of a “plausible strategy” for dispositioning depleted uranium tails apparently originated in connection with the previous application of LES to construct a uranium enrichment facility in Claiborne Parish, Louisiana, denominated the Claiborne Enrichment Center. The Commission’s hearing notice for that proceeding similarly directed that LES must have a “plausible strategy” for the disposition of DUF_6 from the CEC facility, and identified several avenues for tails disposition that might constitute a plausible strategy. See 56 Fed. Reg. 23,310, 23,313 (May 21, 1991). The Licensing Board in that proceeding interpreted the term “plausible strategy” as requiring the applicant to demonstrate “a reasonable or credible plan to dispose of the DUF_6 tails generated at the CEC . . .,” see *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-97-3, 45 NRC 99, 105 (1997), and further noted that “[t]he purpose of the [a]pplicant’s tails disposal strategy is to enable the computation of reasonable cost estimates for the various essential elements of the decommissioning plan,” *id.* at 108. With those standards in mind, the CEC Board went on to find that LES’s proposed “plan to convert DUF_6 to U_3O_8 at an offsite facility in the United States and then ship that material as waste to a final [disposal] site . . . is a reasonable and credible plan for tails disposal.” *Id.* Although no deconversion facility then existed in the United States, nor had LES presented any firm commitment, in the form of a contract or otherwise, by any entity to construct such a facility, the CEC Board determined that those facts “[did] not somehow make it unlikely, or unreasonable to assume, that one will be built here in the future,” *id.*, particularly

²⁵To be clear, the “plausible strategy” challenge at issue here goes solely to the private strategy that LES has stated is its “preferred option,” and should not be read as having any bearing or intimating any Board opinion on the DOE option, which, as we note *infra* Part IV.A, has already been determined by the Commission to be a plausible strategy.

since experience overseas had demonstrated that it was a “commercially feasible process” that could be used in the United States “without first having to overcome difficult technical hurdles,” *see id.* It was similarly reasonable, concluded the CEC Board, to assume that an appropriate disposal site, though not immediately identifiable, would be available in the future.²⁶ *See id.*

3.8 This Board also has intimated what we believe might be required of a “plausible strategy” on several occasions in the instant proceeding. First, in denying the admission of a proposed amendment by NIRS/PC to their contention EC-3/TC-1, which as admitted deals only with the plausibility of LES’s private deconversion strategy, we held that “[w]hile the concepts of technical feasibility of a particular strategy and the costs of implementing such a strategy might arguably be linked in the common term ‘plausible’ . . . the cost of implementation of a particular strategy has no bearing upon whether any particular strategy is technically [feasible].”²⁷ *See* November 2004 Contention Ruling at 13. The sufficiency of a decommissioning cost estimate rests, at least in part, on whether a particular strategy is plausible, that is, a finding that a particular strategy is “plausible” is a necessary precursor to a finding that a cost estimate is “documented and reasonable.” The mere fact that a strategy is “plausible” does not, however, establish that sufficiently documented and reasonable cost estimates can be developed for that strategy. Thus, the question of whether an applicant has presented a plausible strategy, although related to disposition costs,

²⁶ Although bearing in mind that the CEC Licensing Board’s “plausible strategy” decision was (along with several other CEC Board determinations) ultimately vacated by the Commission when the application for that facility was withdrawn, *see Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-5, 47 NRC 113 (1998), we think the Board’s discussion of that issue and a comparison of the plausible strategy demonstration made by LES in the instant proceeding with that in CEC does provide useful insights. Specifically, with regard to its deconversion strategy, LES witnesses in the CEC proceeding testified that, although there were no existing deconversion facilities in the United States, COGEMA had “indicated to LES in writing its willingness to consider providing, in the United States, conversion services for DUF₆.” CEC, LBP-97-3, 45 NRC at 106 (citation omitted). Similarly, regarding the availability of a disposal site for deep land burial of the resulting U₃O₈, LES recognized that there were no operating deep disposal sites, but contended it was “reasonable to assume such a site will be available in the future because in the United States there are dozens of underground uranium mines and other underground mines.” *Id.* (citation omitted). In the instant proceeding, as we discuss *infra* in Parts IV.B.2 and IV.D.2, respectively, LES clearly has provided private deconversion and disposal strategies with considerably more definition than those provided in connection with the earlier CEC license application.

²⁷ Although the discussion in our November 2004 contention ruling used the term “technically plausible,” we recognize that, for the sake of consistency, we should have used the term “technically feasible,” and utilize that term now to reflect the Board’s true intent.

is an inquiry distinct from and precedent to the question of the adequacy of an applicant's dispositioning cost estimates.²⁸

IV. FACTUAL FINDINGS AND LEGAL CONCLUSIONS

A. Role of the Department of Energy "Plausible Strategy"

4.1 As is apparent from the preceding discussion, the focus of much of this proceeding has been upon whether a plausible strategy exists for, and the concomitant cost of, dispositioning DUF_6 generated at the proposed NEF. In its license application, LES presented two alternative strategies: (1) the so-called "private sector" strategy, whereby LES would transfer DUF_6 from the NEF to a private facility for deconversion to a uranium oxide form (i.e., DU_3O_8), followed by transportation of the DU_3O_8 to an appropriate licensed disposal facility, a strategy we discuss at length in Parts IV.B to IV.E, *infra*; and (2) the "DOE strategy," whereby LES would transfer the DUF_6 to DOE for dispositioning (i.e., deconversion and disposal) pursuant to section 3113 of the USEC Privatization Act, *see* 42 U.S.C. § 2297h-11, which requires DOE to accept for disposal any low-level radioactive waste (LLRW) generated by a domestic, NRC-licensed uranium enrichment facility and recoup its disposition costs plus a pro rata share of deconversion facility construction costs from the licensee or responsible third party. *See* LES Exh. 109, at 4.13-8 to -9 ([NEF ER], sec. 4.13 (July 2004)).

4.2 From the outset, LES has identified and pursued the private dispositioning strategy as its "preferred plausible strategy," while noting that DOE deconversion and disposal is an "alternative plausible strategy." As discussed above, *see supra* Part III.B, the Commission determined at the beginning of this proceeding that transfer to DOE constituted a "plausible strategy" for disposal provided the DUF_6 constituted low-level waste, a finding the Commission later made in CLI-05-5.²⁹ The primary purpose of the plausible strategy requirement is to provide a foundation upon which to build reasonable cost estimates for the various elements

²⁸ In their proposed findings of fact and conclusions of law, NIRS/PC gave extensive treatment to what they contend a plausible strategy demonstration requires, *see* NIRS/PC Proposed Findings at 8-17, going so far as to propose a series of different standards for different entities under different circumstances whereby an entity would have to demonstrate, among other things, technical competence, willingness to make a concrete commitment, the strength of that potential commitment, a successful track record, "real world" experience with a similar licensed facility, and even possession of a license or permit, *see id.* at 14-15.

In the Board's view, NIRS/PC misapprehend the importance of the plausible strategy demonstration and, in some instances, directly contradict prior Commission holdings to the effect that a concrete commitment such as a contract is not required. *See supra* p. 626. We decline to go that far.

²⁹ The Board has repeatedly declined to allow NIRS/PC to challenge this Commission determination. *See, e.g.*, November 2004 Contention Ruling at 12-14.

related to ultimate decommissioning of the proposed facility. Yet, even though a strategy (or a portion thereof) may well be “plausible,” for a cost estimate based upon such a strategy to afford reasonable assurance there will be sufficient future funds to support decommissioning and so provide an adequate foundation for a DFP, it must be footed in “documented and reasonable assumptions,” *see* NUREG-1757, at 4-10, which in the Board’s view connotes that cost estimate must have a sufficient degree of reliability.³⁰ Indeed, the core of the matter now before the Board in the context of the remaining contentions at issue is the question whether LES has delineated a reliable estimate of the cost of dispositioning DU from the NEF.

4.3 The determination by the Commission that the strategy of transferring DUF₆ waste from the NEF to DOE is “plausible” thus is not dispositive of the issue whether the cost estimate provided by DOE is sufficiently reliable for an initial estimate of decommissioning funding. As noted above, *see supra* p. 556, NIRS/PC attempted to challenge the DOE cost estimates via a proposed amendment to contention NIRS/PC EC-5/TC-2. The Board nonetheless declined to admit that challenge as raising issues outside the scope of this proceeding. Specifically, the Board found that section 3113 requires DOE to accept DUF₆ from LES for dispositioning and, when acting pursuant to that statutory authority/obligation, DOE can set the costs or, in this case, its cost estimates at whatever level it determines is appropriate. In other words, while section 3113 requires DOE to accept DUF₆ for deconversion and disposal at the request of an NRC-licensed uranium enrichment facility operator, it also gives DOE the exclusive authority to determine the amount of reimbursement required for disposition of that DU waste. Neither an intervenor nor an applicant/licensee (nor seemingly the NRC) has the authority to challenge or direct DOE’s estimates of the fees it will charge to a uranium enrichment facility that requests DOE to disposition its DU waste. *See, e.g., Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-836, 23 NRC 479, 499 (1986) (licensing boards do not undertake review

³⁰In this context, we recognize that the Staff guidance speaks in terms of a cost estimate that is based on assumptions (i.e., components) that are both “documented” and “reasonable.” From our perspective, the combination of these two elements reflects the overall concept of “reliability,” that is, an estimate that is sufficiently trustworthy and dependable to be utilized as a basis for making the requisite financial assurance findings. Indeed, the Staff proposed findings of fact and conclusions of law, and related reply findings, indicate as much. *See, e.g.,* Staff Proposed Findings at 39 (“[t]he Staff accepted the cost estimate provided by the Applicant as reliable based on the fact that it was provided by a third party vendor”); Staff Reply Findings at 4 (“[t]he Staff determined that the cost information from [COGEMA] was reliable based on [COGEMA]’s extensive experience in operating a deconversion facility using the same technology in Pierrelatte, France”); *id.* at 5 (“[w]e agree with the Staff and LES that the cost estimates in the Urenco business study as adjusted to ‘Americanize’ them are a more reliable basis upon which to assess the cost of deconversion within the United States . . .”).

of whether another federal agency complied with its own regulations); *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-82-117A, 16 NRC 1964, 1991 (1982) (licensing boards should not entertain collateral attacks upon the actions of other federal agencies on a matter over which the Commission has no jurisdiction).

4.4 In this regard, when DOE acts pursuant to section 3113 in setting disposition costs or providing cost estimates, the situation is somewhat analogous to the circumstance in which we found LES and/or the Staff are entitled to rely on statements of third-party market participants. *See, e.g.*, LBP-05-13, 61 NRC at 440, 444-45 (LES can rely on public statements of market participants regarding plans to close old enrichment facilities or open new ones). In that sense, DOE cost estimates furnished to LES represent an arm's-length, third-party estimate of the cost of doing business, albeit in an instance when the party offering the estimate is statutorily bound to provide that service. Accordingly, the Board finds that the cost estimates provided relative to the DOE strategy are sufficiently reliable to provide the basis for an initial estimate of the portion of decommissioning funding for the NEF associated with disposition of the DUF_6 produced by the NEF.

4.5 By contrast, as we discuss further below, although the Board concludes that LES's proposed private dispositioning scheme is a "plausible strategy" upon which it might base its cost estimates for pursuing that strategy, we are unable to find that, taken as a whole, the cost estimate provided by LES for its private strategy is sufficiently reliable to form the basis of the portion of a decommissioning cost estimate associated with disposition of the DUF_6 generated by the NEF. As our exposition below indicates, LES has provided an estimate of the cost of each of the major elements involved in dispositioning NEF-generated DUF_6 through a series of contracts or other arrangements it would propose to make with third parties. Some of those elements are sufficiently grounded in estimates of the actual cost of providing a service from experienced third parties so as to be sufficiently reliable for establishing the initial estimate of decommissioning funding associated with those elements.³¹ One of the largest elements of this private strategy, however, involves deconversion of the DUF_6 to DU_3O_8 , and the Board does not find LES's estimate of the cost associated with that element sufficiently reliable. In extensive testimony and discussion of this particular element, LES has failed to establish that the estimate of the cost of construction and operation of that facility, which it bases upon estimates it obtained from a business study done by one of its own owners, is indicative of either (1) the cost a third party would charge in an arm's-length transaction with LES to provide that service; or (2) what it would cost LES if it constructed and operated such a

³¹This is not to say, however, that obtaining an estimate from an experienced third-party vendor is the only way for an applicant to demonstrate that its cost estimate is documented and reasonable, although it clearly is one way to reach that end. We discuss this matter further in Part IV.B.3, *infra*.

facility on its own. So too, the Board finds unreliable LES's "private strategy" estimate of the cost of disposing of DU generated at the NEF, in that LES has neither obtained an estimate from a qualified third party outlining what that party would charge to dispose of the DU nor conducted its own analysis to determine what that cost might be. Thus, while the Board recognizes the possibility that LES might, at some future date, establish a sufficiently reliable all-in cost estimate for a private disposition strategy, for the reasons detailed below, we find that the current cost estimate provided by LES for a private dispositioning strategy is not sufficiently reliable to form the basis of the portion of a decommissioning cost estimate associated with disposition of the NEF-generated DUF₆.

B. Findings Regarding Plausibility and Cost of Deconversion³²

4.6 As the Board has earlier noted, whether a particular strategy is "plausible" relates to, but is not dispositive of, the issue whether a decommissioning cost estimate is sufficiently reliable to be used as a foundation for determining the appropriate size of an applicant/licensee's decommissioning fund. As we also noted, for a strategy to be "plausible" it must be more than merely technically feasible, but a strategy can be plausible and still not appropriately developed and documented to provide a sound footing on which to rest the public health and safety. In other words, the existence of a "plausible strategy" for dispositioning DUF₆ from the NEF is a necessary condition to a demonstration that an applicant has presented a reliable decommissioning cost estimate (i.e., one that is based on "documented and reasonable assumptions"), but is not, in and of itself, sufficient to satisfy that threshold. Accordingly, we decide below (1) whether LES has presented a plausible strategy for private deconversion of DUF₆ from the NEF; and (2) whether the cost estimates for that private deconversion strategy are sufficiently reliable.

1. Witnesses and Evidence Presented

4.7 LES, the Staff, and NIRS/PC each presented witnesses in connection with the October 2005 evidentiary hearing in support of their respective positions on the plausibility and cost of LES's deconversion strategy for DUF₆ waste generated at the NEF. Each of these witnesses presented written direct and rebuttal testimony and gave oral testimony at the evidentiary hearing. For its part, LES presented a panel of four witnesses: (1) Rod M. Krich, LES Vice

³² Because, as we have already noted, *see supra* pp. 619 & note 18, the parties presented testimony and evidence on certain subject matter areas as opposed to contention by contention, we address the remaining contested issues in the same manner.

President of Licensing, Safety, and Nuclear Engineering; (2) Leslie M. Compton, an independent consultant to LES on technical and financial matters; (3) Paul J.C. Harding, Managing Director of Urenco (Capenhurst) Limited in the United Kingdom; and (4) Paul G. Schneider, a technical and management consultant employed by SMG Inc., and retained as an expert consultant by LES. *See* Prefiled Direct Testimony of Rod Krich, Leslie Compton, Paul Harding, and Paul Schneider on Behalf of [LES] Regarding Applicant's Strategy and Cost Estimate for Private Sector Deconversion of [DUF₆] from the Proposed [NEF] (fol. Tr. at 1838) at 1-8 [hereinafter LES Deconversion Direct Testimony]. Mr. Krich testified before the Board at the February 2005 evidentiary hearing in this proceeding and his qualifications are outlined in the Board's first partial initial decision on environmental contentions. *See* LBP-05-13, 61 NRC at 420-21.

4.8 Ms. Compton received a Bachelor of Science degree in Materials Science and Engineering from the Massachusetts Institute of Technology and a Master of Business Administration from the Fuqua School of Business at Duke University, and has more than 10 years of professional experience in the fields of materials engineering, proposal development and contract negotiation, and project and budget management, among others. As a consultant for LES, Ms. Compton provided assistance on technical and financial matters related to project financing and LES's private strategy for dispositioning DUF₆ generated at the NEF, and had principal responsibility for preparing the deconversion cost estimate for LES's private sector dispositioning strategy based on cost information obtained from Urenco. *See* LES Deconversion Direct Testimony at 3-4 & attached resume.

4.9 Dr. Harding holds an M.A. degree in Chemistry and a Doctor of Philosophy from Oxford University in England, and has approximately 25 years of technical and commercial experience in the area of uranium chemical processing, including knowledge of the transformations performed during the nuclear fuel cycle. As Managing Director of Urenco's Capenhurst enrichment facility, Dr. Harding has a detailed understanding of facility operations and all related activities, and is generally familiar with external Urenco operations and activities, including the LES partnership. In addition, Dr. Harding was directly involved in Urenco's request for proposals (RFPs) for the construction and operation of a deconversion facility at Capenhurst, and AREVA's response to that request. *See id.* at 5-6 & attached resume.

4.10 As a consultant with SMG, Inc., Mr. Schneider provides management and technical oversight of various DOE and National Nuclear Security Agency projects. He received a Bachelor of Science degree in Physics and Mathematics from Wake Forest University, a Master of Science in Physics from Emory University, and has over 40 years of experience in the nuclear industry, including in the design of chemical processing plants to convert DUF₆ to uranium oxide and a fluoride byproduct. In a prior position as Director of the Nuclear Fuel Cycle at USEC Inc., Mr. Schneider oversaw the preparation of a bid proposal

to DOE to convert its stockpile of DUF_6 , including selection of a cost-efficient process, determination of the best disposition of facility products, and preparation of a conceptual design of the processing plants, and managed the disposition of USEC's DUF_6 , including disposal of the depleted uranium tetrafluoride and CaF_2 products. Mr. Schneider was retained by LES as an expert consultant on the issues associated with the disposal of CaF_2 produced as a byproduct of the deconversion of DU from the NEF. *See id.* at 6-7 & attached resume.

4.11 The Staff presented a panel of five witnesses: (1) Timothy C. Johnson, NRC Project Manager for the licensing of the proposed NEF; (2) James Park, NRC Project Manager for the environmental review of the NEF license application; (3) Jennifer Mayer, consultant for ICF Consulting, providing testimony under a technical assistance contract with the NRC; (4) Craig Dean, consultant for ICF Consulting, providing testimony under a technical assistance contract with the NRC; and (5) Donald Palmrose, employee of Advanced Systems Technology and Management, Inc., providing testimony under a technical assistance contract with the NRC. Dr. Palmrose provided testimony before the Board during the February 2005 evidentiary hearing on environmental contentions, and his qualifications are outlined in the Board's partial initial decision on those contentions. *See* LBP-05-13, 61 NRC at 427-28. The qualifications of the other four members of the staff panel have likewise been previously discussed by the Board in connection with its second partial initial decision in this proceeding, relative to the environmental impacts of disposal of depleted uranium. *See* LBP-06-8, 63 NRC 271-73.

4.12 NIRS/PC presented one witness, Arjun Makhijani, President and Senior Engineer at the Institute for Energy and Environmental Research (IEER). Dr. Makhijani has also provided previous testimony before the Board, including in the context of the February 2005 hearing on environmental contentions, and his qualifications are outlined in the Board's partial initial decision on those contentions. *See* LBP-05-13, 61 NRC at 428.

4.13 Based on the foregoing, and the respective background and experience of the proffered witnesses, the Board finds that each of these witnesses is qualified to testify as an expert witness on the subject of the plausibility and cost of LES's deconversion strategy.

4.14 In addition, each of the parties presented witnesses during the supplemental February 2006 hearing in support of their respective positions on the cost of capital and depleted uranium cylinder management associated with the deconversion of DU waste from the NEF, each of whom submitted written direct and rebuttal testimony and gave oral testimony at the hearing. *See* Tr. at 3255-3498. To a large degree, the witnesses proffered at the February 2006 hearing overlapped with those presented on the more general topics of deconversion plausibility and cost at the October 2005 hearing. Specifically, LES presented testimony from Rod M. Krich, NIRS/PC presented testimony from Arjun Makhijani, and the Staff presented testimony from a panel of four witnesses, including Timothy C. John-

son, Jennifer Mayer, and Craig Dean. Based on the fact that the Board has found each of these witnesses qualified to testify on the broader issues of deconversion plausibility and cost, of which the cost of capital and cylinder management are subsets, the Board finds each of these witnesses qualified to testify as an expert witness on the issues of cost of capital and cylinder management associated with deconversion of DUF_6 from the NEF.

4.15 The Staff panel also included an additional witness, John Collier, a consultant with ICF Consulting, who had not previously testified before the Board. Mr. Collier holds a Bachelor of Arts in Economics and a Master of Business Administration from the University of Chicago, and has more than 15 years of experience in NRC financial assurance programs, financial analysis, and cost estimation. Pursuant to a technical assistance contract with the NRC, Mr. Collier assisted the Staff in evaluating LES's estimates for the cost of capital associated with the construction of a private deconversion facility. *See* NRC Staff Prefiled Testimony Concerning Clarifying Information Relating to Cost Estimate of Deconversion (fol. Tr. at 3411) at 1-2 & attached resume. Based on the foregoing, the Board finds Mr. Collier qualified to testify as an expert witness on the issue of cost of capital associated with the construction of a private facility for deconversion of DUF_6 from the NEF.

2. Plausibility of Private Deconversion Strategy

4.16 As noted above, since the beginning of this proceeding LES has identified private sector deconversion and disposal as its "preferred strategy" for dispositioning DU waste from the NEF. Relative to the deconversion portion of that equation, NIRS/PC has pursued two separate but interrelated challenges. In contention NIRS/PC EC-3/TC-1, NIRS/PC claims that LES does not have a plausible strategy for private sector deconversion because LES's statement that discussions have been held with COGEMA regarding the construction of a private deconversion facility "is without substance." Paragraph G of contention NIRS/PC EC-6/TC-3 contests the plausibility of the private deconversion strategy given that no such facility currently exists in the United States, "nor is [a facility] likely to be built to suit LES's timing and throughput requirements." *See* Revised Direct Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES's Deconversion Strategy and Cost Estimate (fol. Tr. at 2334) at 3, 4 [hereinafter NIRS/PC Deconversion Direct Testimony].

4.17 The process by which LES proposes to enrich natural uranium at the NEF will produce as a byproduct of that enrichment process DUF_6 , a chemical form of depleted uranium that, if not properly treated, will react with moisture in the air to form hydrogen fluoride (HF), a corrosive chemical compound that can cause severe injury if ingested or inhaled. Accordingly, before long-term

4.22 While much has been made about the ‘‘plausible strategy’’ requirement throughout the course of this proceeding, particularly by NIRS/PC as evidenced by the extensive treatment given this subject in NIRS/PC’s proposed findings of fact and conclusions of law, *see* NIRS/PC Proposed Findings at 8-17, 18-20, NIRS/PC in actuality present no substantial contest to the plausibility of LES’s private strategy. As the Board discussed in Part III.B *supra*, a ‘‘plausible strategy’’ requires that the proposed plan at least be technically feasible, a point Dr. Makhijani has conceded relative to the deployment of COGEMA deconversion technology in the United States. While the parties thus appear to be in general agreement with the Board that something more than mere technical feasibility is required, there nonetheless is little agreement as to how much more is required. *Compare* NIRS/PC Proposed Findings at 8-17, 18-20, *with* LES Proposed Findings at 22-24, *and* Staff Proposed Findings at 7-8. The Commission certainly set the upper and lower bounds of the ‘‘what else’’ question when it stated that ‘‘[w]hile a ‘plausible strategy’ for private conversion of the tails does not mean a definite or certain strategy,’’ which, for example, would ‘‘include completion of all necessary contractual arrangements,’’ nonetheless, ‘‘it must represent more than mere speculation.’’ CLI-04-25, 60 NRC at 226. Based on the particular circumstances of the case before the Board, we find that the MOU between LES and AREVA, which demonstrates the anticipation of both those parties that an appropriate deconversion facility could be constructed to meet LES’s timing and throughput requirements, provides the additional indicia of feasibility necessary to demonstrate this strategy is more than ‘‘mere speculation’’ and falls well within the realm of a plausible proposed strategy. Further, it reflects an important part of that strategy, again in the particular circumstances of this case, because it demonstrates LES has identified a specific entity with pertinent, proven technology and experience as the basis for its private deconversion strategy.³⁶

4.23 In sum, based on the foregoing considerations and the evidence and testimony on the record before the Board, we conclude that LES’s private sector deconversion strategy, whereby COGEMA would construct and operate a deconversion facility in the United States sufficient to satisfy LES’s projected timing and throughput requirements for the NEF, is a ‘‘plausible strategy.’’

relevant to this proceeding on the LES application, but rather will be pertinent to any application by COGEMA or a like entity to construct and operate a deconversion facility. *See* Prefiled Rebuttal Testimony of Rod Krich, Paul Harding and Paul Schneider on Behalf of [LES] Regarding Applicant’s Strategy and Cost Estimate for the Private Sector Deconversion of [DUF₆] (fol. Tr. at 1840) at 3. Moreover, on cross-examination Dr. Makhijani agreed with LES counsel that following the NEPA requirements relative to siting as well as the applicable siting criteria in the NRC regulations would be a sufficient siting process. *See* Tr. at 2389-90.

³⁶ Indeed, in the *CEC* proceeding where LES had provided documentation even less concrete than an MOU (i.e., letters from COGEMA to LES), the Board found that LES had adequately demonstrated the plausibility of its deconversion strategy. *See CEC*, LBP-97-3, 45 NRC at 106-08.

Accordingly, the Board resolves the matters raised by Intervenors NIRS/PC in contention NIRS/PC EC-3/TC-1 and, in relevant part, paragraph G of NIRS/PC EC-6/TC-3 in favor of Applicant LES.

3. Adequacy of Cost Estimate for Private Deconversion Strategy³⁷

4.24 With respect to the LES cost estimate for private sector deconversion, NIRS/PC asserted several challenges set forth in portions of two contentions, NIRS/PC EC-5/TC-2 and paragraph G of NIRS/PC EC-6/TC-3, including the adequacy of the overall LES cost estimate for deconversion, the need to account for cost of capital and HF neutralization, the adequacy of estimated CaF₂ disposal costs, and the costs related to managing empty DUF₆ cylinders. We address each of these issues below.

a. Estimated Cost of Deconversion Services

4.25 Before delving into the heart of the deconversion cost estimate question before the Board, a solid understanding of the complex manner in which LES's \$2.67/kgU cost estimate for deconversion services was calculated is necessary. The LES deconversion cost estimate was principally derived from what generally has been referred to as the "Urenco business study." See LES Deconversion Direct Testimony at 18; LES Exh. 91 (Business Study, Tails Deconversion and Cylinder Washing Plants at Urenco (Capenhurst) Limited (Aug. 26, 2004)) [hereinafter Urenco Business Study]. As Dr. Harding explained on behalf of LES, Urenco, Ltd.³⁸ plans to construct and operate a deconversion facility to service its Capenhurst, United Kingdom enrichment facility and, in pursuit of that project, solicited proposals from potential suppliers of deconversion services, including COGEMA, a subsidiary of Urenco competitor AREVA. In June 2004, COGEMA provided Urenco with a proposal that included, as relevant here, the estimated cost of designing, constructing, and beginning operation of a 3500 MT of uranium per year deconversion facility. To facilitate Urenco management's review of its

³⁷ Judge Kelber did not participate in the February 2006 supplemental evidentiary hearing and, therefore, does not participate in the portion of this decision regarding the matters litigated at that hearing, namely cost of capital and cost of cylinder management.

³⁸ Also by way of background, we observe that LES is a limited partnership whose only business purpose is to provide uranium enrichment services for commercial nuclear power plants. Urenco Ltd. is the sole general partner in LES, and owns 90% of the company. The remaining 10% interest is held by companies representing three domestic electric utilities, namely Entergy Corp., Duke Energy Corp., and Exelon Generation Co. See Staff Exh. 47, at 1-21 to 1-22 (NUREG-1790, "Final Environmental Impact Statement for the Proposed [NEF] in Lea County, New Mexico," vols. 1 & 2 (June 2005)); Letter from J. Curtiss, Winston & Strawn, to Administrative Judges (Mar. 3, 2006) at 1-2 (ADAMS Accession No. ML060660126) (updating LES ownership information).

deconversion options, including the COGEMA proposal, Urenco staff prepared the business study in evidence before the Board. *See* LES Deconversion Direct Testimony at 20-21.

4.26 From this Urenco business study, Mr. Krich and Ms. Compton testified, LES derived its private deconversion cost estimate by adjusting the cost information contained in the business study, as informed by the COGEMA proposal, to account for such variances as the differences in operating capacities between the Capenhurst facility (3500 MT U per year) and the NEF (7000 MT U per year); so-called “Americanization” costs, including NRC licensing fees and converting equipment standards; and currency conversion from Euros to dollars. *See id.* at 18. As calculated by LES, its deconversion cost estimate totaled approximately \$109 million, including (1) \$70 million for facility construction; (2) \$18 million for licensing and engineering; (3) \$12.5 million for annual facility operations and maintenance (O&M); and (4) \$8.8 million for decontaminating and decommissioning (D&D) the facility. *See id.* When converted to a cost per kilogram of uranium (kgU) basis, LES’s cost estimate equaled \$2.67/kgU based on the total amount of DU expected to be processed over the NEF’s operating life.³⁹ *See id.* at 19.

4.27 Witnesses Krich and Compton further explained how LES arrived at those particular cost components in their written testimony and in response to extensive Board inquiry at the October evidentiary hearing.⁴⁰ *See, e.g., id.* at 18-25; Tr. at 2266-2308. Relative to the \$88 million total for construction and licensing and engineering, LES obtained this amount by adding three separate figures obtained from Urenco: (1) a €xxxx million estimate from COGEMA for designing, constructing, and beginning operations at a 3500 MT U per year plant; (2) a Urenco estimate of €xxxx million for project management, building and service provisions, and licensing; and (3) a €xxxx million estimate from COGEMA for doubling the plant capacity to 7000 MT U per year. The first two cost figures were taken directly from the Urenco business study, *see* Urenco Business Study at 8; the third figure, however, was obtained by Urenco through a separate communication with COGEMA, *see* LES Exh. 95, at 1 (Notes of Telephone Discussion with B. Le Motais, COGEMA, prepared by C. Chater, Urenco (Aug. 16, 2004)) [hereinafter COGEMA Cost Clarification]; Tr. at 2314-15. When converted to dollars,⁴¹ those capital costs totaled \$83 million.

³⁹ The deconversion cost estimate was discussed by the parties as both a \$2.67/kgU and a \$2.69/kgU figure at different points on the record. The \$0.02/kgU differential accounts for LES’s estimated cost of disposing of CaF₂ produced during the deconversion process, the adequacy of which we consider *infra* Part IV.B.3.c.

⁴⁰ As a general matter, when converting Euros to dollars LES used an exchange rate of approximately \$1.29 to €1.00. *See* LES Deconversion Direct Testimony at 19.

⁴¹ As discussed above, the parties agreed to state all costs in year 2004 dollars. *See supra* p. 613.

Business Study at 13, and “is the most reliable cost estimate to date since it is the one cost estimate that is based on a contract with an operating facility in which DUF₆ has actually changed hands and been processed.” See NIRS/PC Deconversion Direct Testimony at 10. By contrast, Dr. Makhijani averred, LES’s deconversion cost estimate relies on a business study regarding a facility that has not yet been built and, further, the \$2.67/kgU figure proposed by LES is far below the €x/kgU, or \$xxxx/kgU, number that is based on actual operating experience and a “real world” contract. See *id.* at 11.

4.30 For their part, Staff witnesses took the position that the \$2.67/kgU cost estimate offered by LES was reasonable and sufficiently reliable to protect the public health and safety because it was based on an independent response by COGEMA to a Urenco request for proposals for a facility that was “more or less unrelated to this proceeding,” and the Staff therefore “had no reason to believe that COGEMA would be incorrect in preparing the cost estimate in response to that request for a proposal.” See Tr. at 2134-36. Essentially, according to Mr. Dean, the Staff found the cost information contained in the Urenco business study akin to an independent third-party estimate like that LES obtained, for example, as an estimate of transportation costs. See Tr. at 2125, 2136. Accordingly, the Staff concluded that the information submitted by LES was sufficient to provide a documented and reasonable basis for the deconversion cost estimate. See Staff Deconversion Direct Testimony at 12.

4.31 Based on the testimony and evidence on the record before the Board, we are unable to conclude that LES has carried its burden of demonstrating that its deconversion cost estimate is based on adequately “documented and reasonable assumptions” so as to render the \$2.67/kgU figure presented by LES sufficiently reliable to be used in calculating decommissioning funding. The cost estimate provided by LES is based upon its scaling of a business study done by Urenco, the sole general partner in the LES venture, which in turn is based on cost estimates provided by COGEMA, a company admittedly experienced in deconversion. While we do not question the concept of estimating the cost to construct and operate a facility based on prior experience with a similar facility, in this instance the mere scaling up and adapting of those construction and operation costs, as opposed to obtaining an estimate of the entirety of expected costs to LES or a third party to construct and operate a facility to accommodate the deconversion needs of the NEF, see *infra* note 52, falls short in that it fails to provide a thorough analysis such as would typically be developed and used for any new project.⁴⁴

⁴⁴In this vein, the circumstances now before the Board can be distinguished from the Commission’s decision in *Hydro Resources, Inc.*, in which it found that, in estimating labor costs for its financial assurance plan relative to its proposed uranium mining operation, the applicant was entitled to draw

(Continued)

Without such an analysis, and in the absence of a bona fide third-party estimate of what that entity would charge to provide deconversion services for the NEF, such as LES provided for other components of its decommissioning funding estimate including transportation and CaF₂ disposal, we are unable to find the LES estimate acceptable.⁴⁵

4.32 In sum, we cannot find on the record before us that LES's deconversion cost estimate is sufficiently developed or rests upon sufficiently supportable analyses and assumptions to permit reliance on that estimate, particularly given that the deconversion cost figure represents a material portion of the total decommissioning cost estimate. To be sure, some of the LES estimates and calculations relative to the deconversion estimate appear conservative on their face, e.g., doubling the annual O&M cost. But because the Board does not have confidence that the COGEMA cost estimate that is the basis for the Urenco business study accurately reflects all the variables customarily considered in establishing the cost of deconversion services (e.g., cost of capital), we are unable to conclude that the LES extrapolations from those numbers brings us to a reliable deconversion cost estimate.

4.33 On the other hand, the Board also declines the NIRS/PC invitation to find that the COGEMA-Urenco contract price constitutes a "contemporaneous third party price" on which the LES cost estimate should be based. *See* Tr. at 2175. Dr. Makhijani contended in his written testimony that the approximately €x/kgU is the most reliable cost estimate "to date," albeit with several additional qualifications.⁴⁶ *See* NIRS/PC Deconversion Direct Testimony at 10. Counsel for NIRS/PC also pursued this theory on cross-examination of LES and Staff witnesses. *See* Tr. at 1890-1904, 2173-78. We are not persuaded, however, that the current COGEMA-Urenco contract price provides any better estimate of LES's projected deconversion costs than do the figures derived from the Urenco

upon its prior experience in that field as a basis for its cost estimates. *See HRI*, CLI-04-33, 60 NRC at 597. LES does not have any experience of its own to draw upon as a basis for its deconversion cost estimate. Nor, in fact, does its parent company Urenco, on whose business study the cost estimate is based. Rather, the only entity with actual experience in constructing and operating a deconversion facility, at least as is relevant here, is COGEMA, whose cost estimates and related statements are degrees removed from the instant proceeding.

⁴⁵ Each of these items is discussed further below. Having a third-party estimate for decommissioning costs is not necessarily mandated by the relevant NRC regulations and guidance; nonetheless, as the Staff seems to suggest, having such a cost estimate adds significantly to the reliability of that estimate, *see* NRC Staff Testimony on the LES Transportation Cost Portion of the Decommissioning Cost Estimate (fol. Tr. at 2489) at 4; Tr. at 2505-06; Staff Exh. 37, at 10-11 to -12 (NUREG-1827, "Safety Evaluation Report for the [NEF] in Lea County, New Mexico," Ch. 10 (June 2005)).

⁴⁶ For example, Dr. Makhijani asserted that reliance on that number is only reasonable if, among other things, the cost were offered as part of an MOU between COGEMA and LES, and provisions were made for exchange rate considerations and cost escalation. *See* NIRS/PC Deconversion Direct Testimony at 10-11.

business study. Indeed, a deconversion cost estimate based on that contract price suffers from the same deficiencies as the LES cost estimate to which NIRS/PC object; namely, it provides neither a direct estimate of what a third party would charge LES to process its estimated annual throughput, nor a thorough analysis of what it would cost LES or another entity to construct and operate a facility to process the NEF's anticipated annual throughput.⁴⁷

4.34 To be sure, LES asserted that the cost estimate based on the Urenco business study "is a good independent estimate that reflects a third party's cost at building a deconversion plant," Tr. at 2321, a premise the Staff found sufficiently reliable to support this portion of LES's decommissioning funding requirement, *see* Tr. at 2125-27. But in the Board's view, that approach, which failed to encompass material, customary cost elements, was not adequate to provide a reliable private deconversion cost estimate. To do so, in the Board's estimation, would require LES to follow one of two paths: (1) obtain an estimate from a knowledgeable, experienced third party of what that third party would charge to provide deconversion services for LES based on LES's proposed operation of the NEF; or (2) obtain a thorough analysis from a qualified, credible source of what it would cost either LES or a third party to build, own, operate, and decommission a deconversion facility at the proposed NEF or some other site.⁴⁸ LES having failed to provide a deconversion cost estimate that met either of these criteria, we are unable to conclude LES has satisfied its burden to provide a sufficiently documented and reasonable cost estimate for this element of decommissioning funding.

b. Cost of Capital and HF Neutralization Costs

4.35 In challenging the LES estimate of the cost of deconversion, Dr. Makhi-jani also contended on behalf of NIRS/PC that two additional costs must be included as separate "line-items" to LES's deconversion cost estimate, namely the cost of HF neutralization and cost of capital, *see, e.g.,* NIRS/PC Deconversion

⁴⁷ As Mr. Johnson explained upon questioning by NIRS/PC counsel:

[T]he cost of the small contract between Urenco and COGEMA doesn't necessarily represent the total cost of another entity building a full sized plant and operating [it]. All that reflects is the cost that Urenco happens to be paying COGEMA for processing a relatively small amount of depleted uranium.

Tr. at 2177.

⁴⁸ In the former circumstance, a summary bid or price quote from an experienced third-party vendor would suffice. *See, e.g., infra* Part IV.C.2 (general estimate from nuclear materials transporter sufficient to provide basis for LES's transportation cost estimate). For the latter scenario, the same detailed cost analysis would be required regardless of whether the actual construction and operation of the deconversion facility was completed by LES or a third party, though the cost figures resulting from such an analysis would undoubtedly differ.

Direct Testimony at 11-12; Tr. at 2364-65, each of which LES averred are subsumed in its \$2.67/kgU deconversion cost estimate, *see, e.g.*, LES Deconversion Direct Testimony at 26; Tr. at 2004, 2007. As to the first element, Mr. Krich testified that although LES did not specifically calculate a cost for HF neutralization, LES concluded that the costs associated with neutralizing HF and storing the CaF₂ product would not be more than the costs of handling and storing HF prior to sale, the latter of which were accounted for in the Urenco business study. *See* LES Deconversion Direct Testimony at 26. Dr. Makhijani contended, in response, that this assumption ignores previous cost estimates, such as the Lawrence Livermore National Laboratory analysis that indicated that HF neutralization results in higher cost estimates than production and sale of anhydrous HF, as well as a statement in the Urenco business study that HF neutralization would increase the cost estimate by ~~€xxxx~~/kgU. *See* NIRS/PC Deconversion Direct Testimony at 12.

4.36 Relative to the cost of capital,⁴⁹ i.e., costs incurred by a party seeking to finance the construction of a deconversion facility, Mr. Krich and Ms. Compton testified initially that, although it did not include a specific line item for this cost, LES's \$2.67/kgU estimate contained a sufficient margin of "extra money" in its O&M costs and the revenues resulting from the annual 3% escalation of LES's \$88 million capital cost estimate to cover the cost of capital. *See, e.g.*, Tr. at 2004, 2007, 2016-23. Despite LES's professed view that its initial deconversion cost estimate contained sufficient overestimates of certain costs such that the cost of capital would be subsumed by those overestimates, it indicated to the Staff in a November 23, 2005 letter, LES Exh. 118 (Letter from R.M. Krich, LES, to Director, NMSS, NRC (Nov. 23, 2005)) [hereinafter LES Record Supplement], that LES was "prepared to commit to an additional \$0.40 per kgU to account for the cost of capital," a submission that ultimately led to the February 2006 evidentiary session on this issue. *See supra* p. 621.

4.37 At the February 2006 hearing, Mr. Krich then took the position that LES was not required to account for the cost of capital either as a separate line item cost or as being subsumed within LES's \$2.67/kgU cost estimate because NRC regulations require only that LES provide sufficient financial assurance to ensure that, at the end of the NEF's operating life, sufficient funds are available to cover the cost of deconversion by a third party. *See* Supplemental Prefiled Direct Testimony of Rod Krich on Behalf of [LES] Regarding Cost of Cylinder Management and Cost of Capital Issues (fol. Tr. at 3279) at 17-18 [hereinafter LES Supplemental Deconversion Direct Testimony]. For his part, Dr. Makhijani contended that this LES position that cost of capital need not be accounted for

⁴⁹ Although prior to the start of the October 2005 hearing LES and NIRS/PC stipulated that the cost of capital associated with a private deconversion facility would not be at issue during the evidentiary hearing, *see* August 2005 Stipulation at 2, the parties and the Board nonetheless pursued this line of inquiry without objection by any of the parties.

at all “is entirely new and . . . not in accord with the schedule [in the MOU] on which LES cost estimates have been based.” *See* Revised Prefiled Rebuttal Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES’s Deconversion Strategy and Cost Estimate (Costs of Capital and Cylinder Management) (fol. Tr. at 3492) at 8 [hereinafter NIRS/PC Supplemental Deconversion Rebuttal Testimony].

4.38 Having concluded there is insufficient testimony and evidence on the record before us to find that LES’s deconversion cost estimate of \$2.67/kgU is sufficiently reliable to form the basis for this element of decommissioning funding, we also are unable to determine whether additional “line items” are necessary to account for the HF neutralization costs or cost of capital.⁵⁰ LES simply has not presented the Board, or the Staff for that matter, with a sufficiently specific documented breakdown of the costs contained within the overall deconversion cost estimate.⁵¹ Although the costs of HF handling and storage might well exceed the costs associated with HF neutralization, as LES asserted, the Board has not seen a sufficiently documented estimate of the costs of either of those processes such that we can be confident in holding either that HF neutralization costs are subsumed in the \$2.67/kgU number or that, as NIRS/PC contended, the LES cost

⁵⁰We are persuaded, however, by LES’s rebuttal of Dr. Makhijani’s arguments relative to the LLNL analysis and the €xxxx/kgU additional cost figure from the Urenco business study, the former being relevant only to anhydrous HF, a chemical form LES has committed not to produce, and the latter referring to a scenario whereby Urenco would incur costs for *both* HF handling and storage for sale of that byproduct and HF neutralization, assuming that Urenco treated the HF for sale and subsequently could not offload it into the market. *See* Prefiled Rebuttal Testimony of Rod Krich, Paul Harding and Paul Schneider on Behalf of [LES] Regarding Applicant’s Strategy and Cost Estimate for the Private Sector Deconversion of [DUF₆] (fol. Tr. at 1840) at 9, 11-12.

⁵¹More specifically, LES has provided two divergent lines of testimony and evidence. First, LES contended that costs for HF processing and storage are estimated by COGEMA to be €xxx million, *see* LES Exh. 90, at 5 (Letter from B. LeMotais, COGEMA, to C. Chater, Urenco Ltd. (June 21, 2004)), a figure that was incorporated, via the Urenco business study, into LES’s deconversion cost estimate, and that the €xxxx million added by LES to its cost estimate incorporated additional funding for HF handling and storage, among other things, *see* COGEMA Cost Clarification at 1. *See also* LES Reply Findings at 15. Second, LES presented a letter from John Smets, an expert in the deconversion services field providing information in his personal capacity, in which Mr. Smets conveyed his belief that “[t]he facilities and equipment necessary to produce bulk HF for sale are substantially greater in size and cost than the facilities to neutralize the HF.” *See* LES Exh. 115 (Letter from J. Smets to P. Schneider, SMG, Inc. (Oct. 14, 2005)). However, in his letter Mr. Smets provides no quantitative estimates of those costs, and further appears to assume certain conditions (namely, the need for construction of a rail spur in the HF sale scenario) that make this piece of evidence considerably less reliable. *See id.* Thus, because LES has provided no true cost figures for comparison of the two scenarios, i.e., HF handling and storage versus HF neutralization, it has not provided sufficient information and documentation on which the Board could make a determination about whether HF neutralization costs are subsumed in the overall deconversion cost estimate.

estimate must be increased by some amount to account for those neutralization costs.

4.39 The same holds true for cost of capital. Either of the two positions LES has taken on this matter may well be valid. LES may, as Mr. Krich claimed at the February 2006 hearing, have provided a deconversion cost estimate (\$2.67/kgU) that amounts to adequate end-of-life financial assurance to cover third-party deconversion costs. And LES may, as Mr. Krich and Ms. Compton also averred, have sufficient excess funds in its estimated O&M costs and the revenues resulting from a 3% per annum escalation of LES's \$88 million capital cost estimate to account for cost of capital. But this is not a determination the Board is able to make based on the record before it.⁵² At bottom, LES's "new" position regarding the need to account for cost of capital provides a distinction without a difference. Thus, because we find that LES has failed to provide a sufficiently reliable deconversion cost estimate, we are similarly not in a position to determine either whether (1) the \$2.67/kgU estimate would result in sufficient end-of-life financial assurance to account for a third party's cost of deconversion, if that is indeed all the NRC regulations require;⁵³ or (2) the \$2.67/kgU cost estimate provides sufficient excess funds to cover the cost of capital, if such costs are in fact required to be included as a part of decommissioning funding.

c. Estimated Cost of Landfill Disposal of CaF₂

4.40 With paragraph E of contention NIRS/PC EC-6/TC-3, NIRS/PC assert that LES "seriously underestimates" the costs of disposing of CaF₂, a byproduct of the conversion process. According to this portion of their contention, the CaF₂ will be contaminated with depleted uranium, which will require disposal in a low-level radioactive waste disposal facility rather than a landfill, as LES proposes.⁵⁴ See NIRS/PC Deconversion Direct Testimony at 12-13.

⁵² Certainly, there was no presentation of any detailed financial analysis incorporating, for example, the funding costs and associated expected drawdowns and repayments.

⁵³ The Board takes no position at this juncture as to whether this is all the relevant NRC regulations require. We do, however, note NIRS/PC's argument set forth in their supplemental proposed findings of fact and conclusions of law to the effect that the Commission rules that LES relies on to support its argument that it need only provide sufficient end-of-life funding do not mention uranium enrichment facilities and, indeed, were drafted to apply to other types of licensees (e.g., materials licensees), and that the Commission might have inserted the "plausible strategy" standard into the LES application to account for the fact that enrichment facilities, for example, produce much larger quantities of waste and thus would require more substantial financial assurance. See NIRS/PC Supplemental Proposed Findings at 9.

⁵⁴ The resultant cost for disposal as LLRW would be materially higher, as indicated by the DOE estimate provided to LES which included a cost of \$xxxx/kgU for disposal of CaF₂. See LES Exh. 87, encl. at 13 (Letter from R.M. Krich, LES, to Director, NMSS, NRC (Aug. 12, 2005)).

4.41 As discussed above, see *supra* pp. 635-36, one of the byproducts of the DUF_6 deconversion process is aqueous HF. The HF produced by this process may be sold on the commercial market or, in the alternative, may be neutralized and converted to CaF_2 which itself may then be sold commercially or disposed of in some manner. See Staff Deconversion Direct Testimony at 13. The LES proposed strategy is to neutralize the HF to produce CaF_2 and dispose of it as industrial solid waste in a conventional landfill (e.g., the Lea County municipal landfill). See LES Deconversion Direct Testimony at 25. NIRS/PC contended that this “is not a reasonable or credible assumption at present” because there are currently no federal or state free release limits for uranium-contaminated CaF_2 , and therefore the CaF_2 must be disposed of as LLRW. See NIRS/PC Deconversion Direct Testimony at 12.

4.42 The ultimate selection of a disposal site, and thus whether LES’s plan to dispose of CaF_2 in a municipal landfill is reasonable, turns on whether the concentrations of uranium in the CaF_2 will be sufficiently low such that it will be acceptable for disposal in a landfill. Mr. Krich and Mr. Schneider testified for LES that “COGEMA has identified certain specifications of the HF co-product to be generated by its deconversion process,” including a requirement that the uranium concentration be less than 5 parts per million (ppm). See LES Deconversion Direct Testimony at 27; LES Exh. 90, at 3 (Letter from B. LeMotais, COGEMA, to C. Chater, Urenco Ltd. (June 21, 2004)). They further noted that actual operational experience at COGEMA’s “W” deconversion plant in Pierrelatte, France, confirms that HF uranium contamination is typically below 1 ppm for that plant. See LES Deconversion Direct Testimony at 27; LES Exh. 76 (AREVA-COGEMA, Defluorination of Depleted UF_6 — The W Defluorination Facility at 8 (Sept. 27, 2004)); see also LES Deconversion Direct Testimony at 27-28 (EISs for the Paducah, Kentucky and Portsmouth, Ohio deconversion facilities anticipated contamination levels of less than 1 ppm). Because of the purity of the byproduct HF, Mr. Krich and Mr. Schneider concluded, any resulting CaF_2 will contain only trace amounts of uranium. See LES Deconversion Direct Testimony at 28.

4.43 Witnesses for the Staff testified that the operational experience at three domestic fuel fabrication facilities, each of which produces aqueous HF as a DUF_6 deconversion byproduct, further buttresses the LES claim that the level of uranium contamination would be insufficient to preclude landfill disposal. Specifically, each fabricator is licensed by the NRC for unrestricted release of HF provided uranium contamination does not exceed 3 ppm, a level the NRC believes is sufficiently low to allow sale or disposal of HF or resulting CaF_2 as nonradioactive material. See Staff Deconversion Direct Testimony at 14-15. That those fabricators have been able to operate under the 3-ppm limit, asserted the Staff witnesses, indicates that DUF_6 conversion results in only minimal HF uranium contamination. See *id.* at 15.

4.44 Dr. Makhijani, testifying for NIRS/PC, did not dispute that producing HF with a uranium contamination of 1 ppm is routine. *See* Tr. at 2373. Rather, NIRS/PC contended that landfill disposal has not been established as a “reasonable and credible” plan because (1) no generic “free release” standards exist for uranium-contaminated CaF_2 , *see, e.g.*, NIRS/PC Deconversion Direct Testimony at 12; and (2) disposal of uranium-contaminated CaF_2 at the Lea County, New Mexico landfill would ultimately require approval from NMED, and LES has not attempted to determine whether such approval would be granted. *See* LES Exh. 97, Attach. at 1 (E-mail from R. Krich, LES, to J. Curtiss, Winston & Strawn LLP (Nov. 21, 2004)) [hereinafter CaF_2 Disposal Summary]; NIRS/PC Exh. 272, at 82-83 (New Mexico Solid Waste Management Regulations); Tr. at 1958, 2403. Therefore, declared Dr. Makhijani, the only available option for disposal of CaF_2 is at an LLRW disposal facility, resulting in a considerable increase to this element of the LES cost estimate. *See* NIRS/PC Deconversion Direct Testimony at 12-13.

4.45 In response, Mr. Krich and Mr. Schneider testified that the lack of a generic “free release” standard does not preclude the NRC or an appropriate Agreement State⁵⁵ from authorizing such release of uranium-contaminated CaF_2 on a case-by-case basis, albeit with certain contamination limits. *See* LES Deconversion Direct Testimony at 28. Mr. Krich and Mr. Schneider explained that the State of South Carolina has approved disposal of CaF_2 process waste with a uranium concentration not exceeding 30 picocuries per gram (pCi/g) as nonregulated waste at a solid waste landfill, *see id.*; LES Exh. 77 (Letter from V.R. Autry, South Carolina Department of Health and Environmental Control, to L.D. Garner, Starmet CMI (Apr. 1, 1999)),⁵⁶ which translates to a uranium contamination limit of approximately 70 ppm, *see* Tr. at 2060. Mr. Schneider further testified that he was aware of several instances when disposal of uranium-contaminated CaF_2 actually occurred in South Carolina municipal landfills, albeit in smaller quantities from fuel fabrication facilities. *See* Tr. at 2062-63.

4.46 Dr. Makhijani testified in response that the fact that small quantities of CaF_2 from fuel fabrication facilities had been disposed of in conventional landfills did not end the inquiry regarding the disposal of uranium-contaminated CaF_2 from uranium enrichment facilities, for which the quantities of material for disposal are much greater. *See, e.g.*, Tr. at 2391-93. In support of this proposition, Dr.

⁵⁵Under the NRC’s Agreement State program, the NRC delegates certain regulatory authority to a state with respect to specified regulated materials, including the disposal of such materials. The Agreement State program is discussed in detail in our second partial initial decision. *See* LBP-06-8, 63 NRC at 260-61.

⁵⁶Mr. Schneider also cited an instance when the South Carolina Department of Health and Environmental Control permitted disposal of waste of up to 250 pCi/g, or approximately 600 ppm, at WCS. *See* Tr. at 2061; LES Exh. 78, at 1 (Letter from V.R. Autry, South Carolina Department of Health and Environmental Control, to L.D. Garner, Starmet CMI (June 17, 1999)).

Makhijani pointed to several NEPA-related documents. In addition to three DOE NEPA-related documents that he asserted conclude that, even assuming a uranium contamination of less than 1 ppm, it is unknown whether the CaF_2 resulting from the deconversion process would be sold or disposed of as nonhazardous solid waste or as LLRW, Dr. Makhijani declared that because the draft EIS and FEIS for the NEF only considered disposal of CaF_2 as LLRW, *see* Revised Rebuttal Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES's Deconversion Strategy and Cost Estimate (fol. Tr. at 2236) at 9-11 [hereinafter NIRS/PC Deconversion Rebuttal Testimony], such disposal "must be [the] choice of the applicant," *see* NIRS/PC Deconversion Direct Testimony at 13. Upon cross-examination, however, Mr. Johnson explained for the Staff that the purpose of the NEPA-related analysis conducted by the Staff is to bound the environmental impacts of disposal of the CaF_2 , and therefore that the EIS for the NEF considered the disposal pathway that would result in greater impacts,⁵⁷ but that the NEPA analysis "wasn't intended to define what is expected" or to limit LES's disposal options.⁵⁸ *See* Tr. at 2171-72. In fact, Dr. Palmrose stated, while the EIS mentions only low-level waste disposal, he "reviewed all reasonable options for their environmental impacts" and applied what he believed was the most conservative analysis, namely, disposal as LLRW. *See* Tr. at 2112-13. According to Dr. Palmrose, "this does not mean that other options that would have lower impacts are eliminated, but that [the LLRW disposal] analysis would bound those impacts." Tr. at 2113.

4.47 In considering these arguments, we begin with the proposition that the actual method of disposal of CaF_2 is ultimately an issue that must be addressed in the first instance in the context of licensing any private deconversion facility. In other words, all the relevant NRC regulations and accompanying guidance require at this juncture is that the LES cost estimate for disposal of CaF_2 be based on documented and reasonable assumptions. And on the record before the Board, we find that because it has been and currently is being done, conventional landfill disposal of CaF_2 contaminated with low concentrations of uranium that can reasonably be expected to result from the processes at issue here constitutes a reasonable and credible assumption for the purposes of calculating this aspect of LES's decommissioning cost estimate. LES and the Staff have adequately demonstrated that it is reasonable to expect the CaF_2 uranium content will be

⁵⁷ For example, Dr. Palmrose pointed out for the Staff that disposal as low-level waste would result in environmental impacts related to potentially long-distance transportation of the waste from the deconversion facility to a low-level waste disposal facility, as opposed to relatively short-distance transportation to a conventional landfill. *See* Tr. at 2168.

⁵⁸ Indeed, nothing in NEPA requires agencies to select the most environmentally benign option or to require an applicant/licensee to do so. *See Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 88 (1998) (citations omitted).

below 1 ppm, and NIRS/PC has failed to show otherwise. There also have been several occasions in which the NRC or an appropriate Agreement State agency has authorized landfill disposal at concentrations (e.g., approximately 70 ppm) that far exceed the expected NEF-related concentration of 1 ppm. The fact that several landfills currently accept CaF₂ from similar processes for disposal, albeit in smaller quantities, further demonstrates the reasonableness of LES's assumption that the NEF-related CaF₂ may be disposed of in a municipal landfill.

4.48 Relative to the cost of disposing of CaF₂ in a conventional landfill, Mr. Krich testified that, based on the assumption that landfill disposal was appropriate, LES contractor Framatome ANP contacted the Lea County Public Works Director J.D. Norby to discuss the possibility of disposing of NEF-related CaF₂ at the Lea County landfill, including the estimated costs of disposal. *See* LES Deconversion Direct Testimony at 25; CaF₂ Disposal Summary, Attach. at 1. Mr. Norby informed Framatome that the estimated cost of disposing of CaF₂ at the landfill beginning in 2005 would be \$31/ton for bulk powder CaF₂, the disposal form LES proposes, a number that was confirmed by an independent source. *See* CaF₂ Disposal Summary, Attach. at 1. Based on an approximate density of 100 pounds per cubic foot for bulk CaF₂ powder, Framatome calculated the estimated disposal cost to be approximately \$1.55 per cubic foot or \$41.85 per cubic yard, *see id.*, Attach. at 2, which translates to approximately \$0.02/kgU, *see* LES Deconversion Direct Testimony at 26. Mr. Krich also concluded that because disposal in a municipal landfill would likely not involve transporting the CaF₂ great distances, the cost of transporting that material is sufficiently covered by the \$0.02/kgU estimate. *See* Tr. at 2078.

4.49 For its part, the Staff determined that the \$0.02/kgU cost estimate was based on documented and reasonable assumptions in that it was substantiated by an independent third-party estimate. *See* Staff Deconversion Direct Testimony at 14; Tr. at 2125.

4.50 In fact, NIRS/PC presented no real contest to the \$0.02/kgU figure itself. Rather, Dr. Makhijani's testimony, *see* NIRS/PC Deconversion Direct Testimony at 12-14; NIRS/PC Deconversion Rebuttal Testimony at 7-11, as well as NIRS/PC counsel's cross-examination of LES and Staff witnesses, *see* Tr. at 1952-65, 2164-73, focused almost entirely on the appropriateness of landfill disposal for CaF₂ and, as a result, whether the cost estimate for disposal should be considerably larger to account for the need to dispose of the CaF₂ as low-level waste. NIRS/PC presented no testimony or evidence to directly contradict the LES-proffered estimate for disposing of CaF₂ in a landfill. In fact, as LES witness Krich pointed out in his written rebuttal testimony, one of the documents that NIRS/PC presented in support of their assertion that NEF-related CaF₂ must be disposed of as low-level waste (or at least the cost estimate must be based on such an assumption), the LLNL report, "states that the assumed disposal cost for disposal of CaF₂ as nonhazardous solid waste is \$2 [per cubic foot]." *See* Prefiled

Rebuttal Testimony of Rod Krich, Paul Harding and Paul Schneider on Behalf of [LES] Regarding Applicant's Strategy and Cost Estimate for the Private Sector Deconversion of [DUF₆] (fol. Tr. at 1840) at 12 (citing NIRS/PC Exh. 56, at 118 (Hatem Elayat, et al., Cost Analysis Report for the Long-term Management of [DUF₆] (LLNL May 1997) [hereinafter LLNL Report]. As Mr. Krich noted, however, the difference between the \$2 per cubic foot cost figure and the \$1.55 per cubic foot estimate from the Lea County landfill is de minimis once those figures are converted to cost per kgU.⁵⁹ *See id.*

4.51 After reviewing the testimony and evidence before the Board, we resolve paragraph E of contention NIRS/PC EC-6/TC-3 in favor of LES, in that LES has carried its burden of demonstrating that landfill disposal of CaF₂ resulting from NEF operations at a rate of \$0.02/kgU (including transportation to the landfill) is sufficiently reliable to be used for computation of this element of the required decommissioning funding estimate.

d. Estimated Costs of Cylinder Management

4.52 In connection with contention NIRS/PC EC-5/TC-2, NIRS/PC contend that LES's deconversion cost estimate improperly excludes the estimated cost of managing empty DUF₆ cylinders. During the October 2005 hearing, Mr. Krich testified on behalf of LES that he anticipated that the DUF₆ cylinders would be reused throughout the life of the NEF; therefore, the costs associated with cylinder management (e.g., washing and recertification) were properly considered operational costs of the NEF and need not be included as a separate line item in its deconversion cost estimate for the purposes of estimating decommissioning funding. *See* Tr. at 1965-69, 2313. On surrebuttal, however, Ms. Mayer testified for the Staff that Mr. Krich's assessment about the need (or lack thereof) to account for cylinder management in the cost estimate relative to the decommissioning funding plan was only partially accurate. Specifically, Ms. Mayer noted that while such a cost might normally be considered an operational cost, when, as here, a deconversion facility does not yet exist, it is reasonable to include a separate line-item cost for any cylinder washing and/or recertification that might be required before the deconverter could reuse or otherwise benefit from possession of the cylinders. *See* Tr. at 2140-41. In fact, as Ms. Mayer testified, the Staff apparently was not aware that the LES deconversion cost estimate did not account for the cost of cylinder management until they received Dr. Makhijani's prefiled testimony a few weeks prior to the October evidentiary hearing, *see* Tr. at 2138-39, and,

⁵⁹ Further, as LES counsel elicited on surrebuttal, LES used the \$31/ton figure instead of \$24/ton, *see* CaF₂ Disposal Summary, Attach. at 1, the latter of which corresponds to the agreement the parties made to refer to costs in terms of 2004 dollars, thereby making LES's use of the \$31/ton even more conservative. *See* Tr. at 2064-65.

as Mr. Johnson testified on cross-examination, because the Staff views cylinder washing as “a legitimate cost to add to decommissioning funding,” the Staff indicated that it would need to have further discussions with LES regarding that issue, *see* Tr. at 2222.

4.53 Although LES apparently continues to view the cost of managing empty DUF₆ cylinders as an operational cost that need not be included in its initial decommissioning cost estimate, in a November 23, 2005 letter to the Staff, LES nonetheless “commit[ed] to an additional \$0.60 per kgU for the cost of cylinder washing,” *see* Record Supplement at 2. Because LES has agreed to include cylinder washing as a separate line item cost in its decommissioning funding cost estimate, the only question for the Board is whether this \$0.60 figure constitutes a reliable cost estimate based on documented and reasonable assumptions.⁶⁰

4.54 At the February 2006 evidentiary hearing, NIRS/PC took the basic position that, while the \$0.60 cost figure might be appropriate for the washing aspect of cylinder management costs, assuming the cylinders are recycled for use in the industry, *see* Tr. at 3390-91; Revised Prefiled Direct Testimony of Dr. Arjun Makhijani In Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES’s Deconversion Strategy and Cost Estimate (Costs of Capital and Cylinder Management) (fol. Tr. at 3492) at 14 [hereinafter NIRS/PC Supplemental Deconversion Direct Testimony],⁶¹ LES still has not adequately demonstrated what would be done with the cylinders after such cleaning (i.e., recycling, disposal, or free release), and, further, has not demonstrated the costs associated with cylinder disposal or free release. *See* NIRS/PC Supplemental Proposed Findings at 31. While NIRS/PC thus does not present any substantial challenge to the \$0.60/kgU cost estimate provided by LES “for what it does,”⁶²

⁶⁰ Indeed, the Board noted in its order scheduling the February 2006 evidentiary hearing, “the Board is interested in testimony and evidence from NIRS/PC that might challenge or contradict the approximately \$0.59 per kgU cost figure derived from the Urenco business study and, therefore, the \$0.60 per kgU LES cost estimate.” *See* Record Supplementation Ruling at 3 n.4.

⁶¹ In the course of drafting the instant decision, it came to the Board’s attention that the copy of Dr. Makhijani’s supplemental direct testimony regarding deconversion included in the transcript of the February 2006 evidentiary hearing was missing several pages. Given that the Board provided NIRS/PC the opportunity to propose corrections to that transcript, *see* Licensing Board Memorandum and Order (Post-Hearing Administrative Matters) (Feb. 16, 2006) at 1 (unpublished), and NIRS/PC failed to point out the error in the transcript, we would be justified in discounting those omitted portions of Dr. Makhijani’s written testimony in that they were not made part of the evidentiary record, we nonetheless considered the version of Dr. Makhijani’s prefiled direct testimony in reaching our decision here, *see* Revised Prefiled Direct Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES’s Deconversion Strategy and Cost Estimate (Costs of Capital and Cylinder Management) (Jan. 13, 2006).

⁶² Although Dr. Makhijani stated in his written direct testimony on this issue that conversion of the Euros per cylinder cost from the Urenco business study to \$/kgU resulted in a figure of \$0.61/kgU to

(Continued)

see Tr. at 3390-91, they do contend that LES has not substantiated its claim that the empty cylinders will actually be washed and certified for reuse, rather than disposed of or prepared for “free release,” and has not demonstrated either the cost of, or strategy for, dealing with the cylinders should reuse not be possible.

4.55 As to the first point — the feasibility of recycling or reusing the cylinders following facility decommissioning — Dr. Makhijani contended on behalf of NIRS/PC that reliance on the \$0.60/kgU cost estimate is reasonable only if LES completes “an additional analysis of marketability of the cylinders at the projected time of decommissioning.” *See* NIRS/PC Supplemental Deconversion Rebuttal Testimony at 4-5. Because LES has not completed such a market analysis, the cost estimate for cylinder management must, according to Dr. Makhijani, be based on the assumption that those cylinders will be disposed of as low-level waste. *See* NIRS/PC Supplemental Deconversion Direct Testimony at 15.

4.56 As the Board has previously pointed out, LES is not required, as a basis for its initial decommissioning funding cost estimate, to make projections or otherwise speculate about what events may or may not occur in the distant future. The initial decommissioning cost estimate thus is appropriately based on demonstrable *current* market conditions, and any future changes in the market that would impact LES’s cost estimate should be accounted for as part of the periodic update process. Relative to cylinder usage, Mr. Krich and Dr. Harding both testified that empty cylinders would be a valuable commercial resource to either LES or a third-party operator of a deconversion facility because such cylinders could be continuously reused or recycled within the industry. *See* Tr. at 1965-77;⁶³ LES Supplemental Deconversion Direct Testimony at 6. That cylinder reuse or recycling is a reasonable assumption is further supported by a number of factors, including evidence to the effect that (1) Cameco Corp. routinely washes and recertifies cylinders for its customers, *see* Supplemental Prefiled Rebuttal Testimony of Rod Krich on Behalf of [LES] Regarding Cost of Cylinder Management and Cost of Capital Issues (fol. Tr. at 3281) at 4; LES Exh. 123 (Letter from A. Oliver, Cameco Corp., to R.M. Krich, LES (Jan. 9, 2006)) [hereinafter Cameco Letter]; (2) 50-year-old cylinders are still in circulation, *see* Tr. at 3386; and (3) when the Sequoyah Fuels UF₆ production facility shut down,

\$0.68/kgU, *see* NIRS/PC Supplemental Deconversion Direct Testimony at 14, he did not explain how he arrived at these figures, or why they were different than the \$0.59/kgU cost he calculated using the Urenco business study in the context of his October 2005 testimony on this subject, *see* NIRS/PC Deconversion Rebuttal Testimony at 16. We therefore decline to consider Dr. Makhijani’s revised cost figures.

⁶³ In fact, Dr. Harding asserted that disposing of the empty cylinders “would be a ludicrous thing to do . . . It would be a waste of disposal space, a total waste of a resource to scrap them off.” *See* Tr. at 1975.

it had no problem getting rid of its cylinders, *see* Tr. at 3388. Thus, we find no merit in Dr. Makhijani's argument that LES's cylinder management cost estimate must be based on the assumption that those cylinders will have to be disposed of as low-level waste.⁶⁴

4.57 In sum, and particularly in the absence of any contrary evidence, the Board declines at this juncture to speculate about what the market might be at some point in the future for the reuse or sale of empty DUF₆ cylinders from the NEF. Based on the evidence presented, we find that it is reasonable for LES to assume, as the basis of this aspect of its decommissioning cost estimate, that the empty cylinders will represent a resource for the operator of the deconversion facility (or another facility or user) and, therefore, that LES is required only to provide a cost estimate for cleaning those cylinders to a level that allows their unrestricted release for reuse. The Board further finds that LES has adequately demonstrated via information from a third-party commercial entity that \$0.60/kgU represents a reliable estimate of the cost of washing to the applicable "free release" standards empty DUF₆ cylinders from the NEF, such that it may be utilized for purposes of decommissioning funding.⁶⁵

e. Overall Holding Regarding Deconversion-Related Costs

4.58 In sum, with respect to NIRS/PC's challenges to the overall LES deconversion cost estimate, we find that LES has failed to carry its burden to demonstrate the adequacy of that cost estimate, and thus find in favor of NIRS/PC relative to the portions of NIRS/PC EC-5/TC-2 and paragraph G of NIRS/PC

⁶⁴ Indeed, Dr. Makhijani's primary argument, that "in planning for the DOE inventory of depleted uranium, DOE has assumed that the DUF₆ cylinders would be disposed of," NIRS/PC Supplemental Deconversion Direct Testimony at 14, was sufficiently rebutted by LES. Specifically, as Mr. Krich testified, the DOE study referred to by Dr. Makhijani assumes that its cylinders will be used as DU disposal containers, and thus there is no evidence that the cylinders themselves will be considered low-level waste. *See* Tr. at 3399; *see also* LES Supplemental Reply Findings at 16.

⁶⁵ More specifically, at the February evidentiary hearing, Mr. Krich produced a letter from Cameco Corp., an entity with considerable experience in cylinder washing and recertification, that stated:

LES's cost estimate is conservative, and should be more than sufficient to cover the costs of the activities mentioned above based on Cameco's experience. Cameco provides cylinder washing and recertification services (to the current ANSI N14.1 standard) for third party customers. The price that Cameco charges for performing these activities in 2006 is \$2,500 per cylinder (or \$0.29 per kgU as UF₆). This price, which includes overhead and profit[,] is about half of the figure cited by LES in its license application.

Cameco Letter at 1.

Mr. Krich further demonstrated the inherent conservatism in its \$0.60/kgU cost estimate in that LES assumed that each cylinder would be used only once, whereas in reality it is most likely that many of the cylinders will be reused by LES throughout the life of the NEF. *See, e.g.*, Tr. at 2311-12; LES Supplemental Deconversion Direct Testimony at 9.

EC-6/TC-3 that challenge the overall deconversion cost estimate. With regard to the LES cost estimate for CaF_2 disposal and DUF_6 cylinder management costs, however, we find that LES has carried its burden in the face of NIRS/PC challenges to the adequacy of those costs.

C. Findings Regarding Transportation Costs

4.59 Another item at issue in connection with LES financial assurance is the estimate of the costs involved in transporting DUF_6 from the NEF to a deconversion facility and then transporting the resulting U_3O_8 from the deconversion facility to a disposal site. LES presented this estimate by means of an “average” cost to cover transit of this material over the entire circuit from the NEF to the deconversion facility to the disposal facility, a figure that NIRS/PC has contested for several reasons.

4.60 In relevant part, contention NIRS/PC EC-5/TC-2 provides:

Louisiana Energy Services, L.P., (LES) has presented estimates of the costs of decommissioning and funding plan as required by 42 U.S.C. 2243 and 10 C.F.R. 30.35, 40.36, and 70.25 to be included in a license application. See Safety Analysis Report 10.0 through 10.3; ER 4.13.1

LES has presented additional estimates for the costs of deconversion, transportation, and disposal of depleted uranium for purposes of the decommissioning and funding plan required by 42 USC 2242 and 10 CFR 30.35, 40.36, and 70.25. See LES Response to RAI dated January 7, 2005. Such presentations are insufficient because they contain no factual bases or documented support for the amounts of the following particular current LES estimates, i.e., . . . \$0.85/kgU for transportation, and . . . cannot be the basis for financial assurance.

According to NIRS/PC, the LES transportation figure of \$0.85/kgU is not an appropriate cost estimate measure because it reflects an average, rather than the sum, of the separate cost estimates provided to LES for DUF_6 and U_3O_8 transportation, the basis for which has not been sufficiently justified by LES or the Staff. *See* Revised Direct Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contention EC-5/TC-2 Concerning LES’s Transportation Cost Estimate (fol. Tr. at 2515) at 10-11 [hereinafter NIRS/PC Transportation Cost Direct Testimony].

1. Witnesses and Evidence Presented

4.61 Addressing this issue on behalf of LES was Rod Krich, LES Vice President of Licensing, Safety, and Nuclear Engineering. Mr. Krich’s qualifications have been described previously. *See* Part IV.B.1, *supra*. On this transportation

cost matter, the Staff's panel consisted of Timothy C. Johnson, Jennifer Mayer, and Craig Dean, all of whom previously testified regarding other aspects of the safety matters at issue in the October 2005/February 2006 evidentiary hearings and whose training and experience have been described previously. See Part IV.B.1, *supra*. Finally, Dr. Arjun Makhijani, who was a witness on other issues and whose training and experience likewise have been described previously, see Part IV.B.1, *supra*, was the sole NIRS/PC witness on this matter.

4.62 Based on the respective qualifications presented in their written testimony on the adequacy of the LES transportation cost estimate, the Board finds that each of the LES, Staff, and NIRS/PC witnesses is qualified as an expert on the transportation aspect of this financial assurance matter for the purposes of this proceeding.

4.63 In his testimony, Dr. Makhijani noted that LES originally obtained an e-mail estimate from Rod Fisk, Chief Executive Officer (CEO) of Transportation Logistics International (TLI), that provided a cost range for transportation of both DUF_6 and U_3O_8 , and that Mr. Fisk in a subsequent e-mail stated that these transportation costs were dominated by overhead-associated items and thus were essentially independent of distance. Relying on this information, Mr. Krich averaged the *lowest* value from the range of DUF_6 and DU_3O_8 costs to arrive at the LES estimate of \$0.85/kgU for the transportation cost. But in doing so, Dr. Makhijani maintained, Mr. Krich made two mistakes. First, in contravention of NRC guidelines requiring that, at a minimum, all cost estimates be "based on documented and reasonable assumptions," NUREG-1757, at 4-10, the exchange of vague e-mails between Mr. Krich and Mr. Fisk provide the costs, but without detailed justification so as to make the estimates insufficient to document the assumptions or provide a basis for determining if they are reasonable. Similarly, according to Dr. Makhijani, the LES claim that the overhead costs predominate among the costs for transit also is unquantified beyond the statement that "time and fuel[] amounts to fractions of a cent per kilogram/mile." LES Exh. 99 (E-mail from Rod Fisk, CEO, TLI, to Rod Krich, Vice President, LES (Mar. 23, 2005, 2:44 p.m. EST)) [hereinafter Fisk March 2005 E-mail]. Moreover, Dr. Makhijani declared, the significance of this documentation deficiency is enhanced by Mr. Fisk's withdrawal as an LES expert witness, with the result that the individual who developed the estimates did not testify before the Board, leaving only the recipient of the e-mails to address their meaning. See NIRS/PC Transportation Cost Direct Testimony at 9-10.

4.64 Additionally, according to Dr. Makhijani, given that Rod Fisk asserted transportation costs are effectively independent of distance because overhead costs predominate, the cost of transporting the material both from the NEF to the deconversion facility and then from the deconversion facility to a disposal site will be incurred for every kilogram of DU that is generated by the proposed LES facility. Thus, Dr. Makhijani argued that instead of averaging the costs as

Mr. Krich did, an action with which the Staff apparently agreed, LES should have added the costs to reflect the costs of both legs of the journey. Adding the costs would change the LES transportation estimate to the range of from \$xxxx to \$xxxx per kgU based on the range of TLI-quoted prices, thereby adding between \$111 million and \$148 million to the LES financial assurance figures, assuming the proposed NEF generates 133,000 metric tons of DU. *See id.* at 10-11; *see* Revised Rebuttal Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contention EC-5/TC-2 Concerning LES's Transportation Cost Estimate (fol. Tr. at 2516) at 3 [hereinafter NIRS/PC Transportation Cost Rebuttal Testimony]. So too, Dr. Makhijani declared, relative to the cost elements allowed by the Board's October 4, 2005 issuance, the "IEER [Waste Isolation Pilot Project (WIPP)] Disposal Scenario 1," reflects a low-end DU cost disposal estimate footed in experience at WIPP and an estimated CaF_2 dispositioning cost based on the LLNL analysis, while the "IEER WIPP Disposal Scenario 2" involves a medium WIPP cost estimate and an estimated CaF_2 cost arising from a report of the National Research Council of the National Academy of Sciences that in total would support a disposal cost estimate per kgU of between \$18.13 and \$23.88, as opposed to the \$5.85/kgU proposed by LES. *See* NIRS/PC Transportation Cost Rebuttal Testimony at 4-5.

4.65 In his testimony on behalf of LES, Mr. Krich stated that the LES estimate for transportation was \$0.85/kgU for transportation of DUF_6 and DU_3O_8 , which is independent of the distance the material is actually being shipped. Mr. Krich further indicated that the LES transportation cost estimate from TLI, which specializes in the domestic and international transport of radioactive materials, including UF_6 and U_3O_8 in particular, was initially provided on December 2, 2004, via an e-mail that was a followup to a prior LES phone conversation with Mark Lambert of TLI. *See* Prefiled Direct Testimony of Rod Krich on Behalf of [LES] Regarding the Adequacy of Applicant's Cost Estimate for the Transportation of [DU] from the Proposed [NEF] (fol. Tr. at 2449) at 3-4, 5 [hereinafter LES Transportation Cost Direct Testimony]; Tr. at 2484. According to Mr. Krich's testimony, he asked TLI for cost estimates for moving depleted uranium either in the form of UF_6 or in the oxide form (i.e., U_3O_8), from the NEF site to a deconversion facility, and then on to a disposal site. *See* Tr. at 2460, 2461, 2484-85. Mr. Krich stated that the e-mail estimates from TLI CEO Rod Fisk provided two sets of cost ranges: (1) \$xxxxxxxxxxxxx per kg for DUF_6 , and (2) \$xxxxxxxxxxxxx per kg for U_3O_8 . These costs are for transporting by truck DUF_6 in 48X/48Y cylinders, and DU_3O_8 in 55-gallon drums within a 20-foot International Organization for Standardization container, which are standard industry methods for transporting such materials. *See* LES Transportation Cost Direct Testimony at 5.

4.66 Thereafter, from this cost information, Mr. Krich estimated the average cost of transporting DU to be \$0.85/kgU. He did this by computing the average of

ranking of strategies by cost. Distance affects only the shipping component of transportation costs, which will vary linearly with the distance between facilities. Total transportation costs are therefore relatively insensitive to distances between facilities. There is significant flexibility, therefore, in choosing off-site locations for [de]conversion, manufacturing, storage, and disposal facilities.

Prefiled Rebuttal Testimony of Rod Krich on Behalf of [LES] Regarding the Applicant's Private Sector Cost Estimate for the Transportation of [DU] (fol. Tr. at 2451) at 4 (emphasis omitted) (quoting LLNL Report at 92) [hereinafter LES Transportation Cost Rebuttal Testimony]. Because NRC guidance requires only a "reasonably accurate" estimate or "best approximation" of expected costs, the quantitative assessment or justification suggested by Dr. Makhijani is not necessary, Mr. Krich declared, particularly in light of Mr. Fisk's knowledge and expertise regarding the transportation of radioactive materials and the attendant costs. *See id.*

4.69 Addressing Dr. Makhijani's second criticism, Mr. Krich asserted that it is footed in the notion that since NEF-generated DU transportation involves moving two distinct DU forms — DUF_6 and DU_3O_8 — LES should effectively double its transportation cost estimate by adding, rather than averaging, the TLI-provided cost values. Mr. Krich maintained, however, that Dr. Makhijani's argument is based on a clear misunderstanding of the cost information provided by Mr. Fisk. In this regard, he testified that, based on his initial telephone conversation with TLI personnel, and Mr. Fisk's later clarification that distance has a "minimal effect" on overall transportation costs, Fisk March 2005 E-mail, it was his understanding that the TLI-provided cost ranges were meant to allow him to calculate a consolidated or "cradle-to-grave" unit cost for disposing of each NEF-generated kilogram of DU. As a consequence, the LES \$0.85/kgU cost estimate would include the total cost of transporting each NEF-generated kilogram of DU, both in its pre-deconversion DUF_6 form and in its post-deconversion DU_3O_8 form. Further, according to Mr. Krich, to do away with any potential additional uncertainty regarding the matter, he asked Mr. Fisk to affirm the validity of his interpretation and his use of the TLI cost information, which Mr. Fisk did in a letter dated October 6, 2005. *See id.* (citing LES Exh. 110 (Letter from Rod Fisk, CEO, TLI, to Rod Krich, Vice President, LES (Oct. 6, 2005) [hereinafter Fisk Letter])).

4.70 In their testimony, Staff witnesses indicated they understood that (1) the NEF-associated transportation cost encompasses both the cost of shipping the DUF_6 from the NEF to the conversion facility and the expense of transporting the U_3O_8 from the conversion facility to the disposal site; (2) the cost was based on a TLI estimate; (3) TLI provided two ranges of estimates, one for DUF_6 and one for oxides, and represented that its quote is very conservative; and (4) LES used the average of the lower range estimate for each material, after converting

the cost to \$/kgU. These witnesses further declared that (1) the Staff considered the cost information relied on by LES to be reliable because it was provided by an independent third-party vendor; and (2) the LES use of the lower end of the range of costs was acceptable because of the conservative nature of the quotation. *See* NRC Staff Testimony on the LES Transportation Cost Portion of the Decommissioning Cost Estimate (fol. Tr. at 2489) at 3-4. And relative to the latter points, the Staff witnesses indicated they disagreed with Dr. Makhijani's assertion that the transportation cost estimate was insufficiently documented given LES provided documentation from a senior official of independent third-party vendor TLI, who cited specific cost numbers for DUF_6 and uranium oxides transport and explained the costs were conservative and independent of distance because overhead expenses were the principal cost elements.⁶⁶ *See* NRC Staff Rebuttal Testimony Regarding Transportation (fol. Tr. at 2491) at 2 [hereinafter Staff Transportation Cost Rebuttal Testimony].

4.71 Moreover, as to Dr. Makhijani's assertion that LES underestimated transportation costs by averaging the TLI-provided costs for UF_6 and uranium oxides instead of adding them, the Staff witnesses noted that for the purpose of decommissioning, the NEF-produced tails must first be transported as UF_6 to a deconversion facility, where they are converted to a uranium oxide, U_3O_8 , which is then transported to a disposal site. As a result, the Staff observed, in order to accomplish final tails disposition, both these transportation segments are required and so the disposition-associated transportation costs must include the transportation costs for both segments. According to the Staff, because the TLI estimate relied upon by LES contains two costs — one for UF_6 transport and the other for U_3O_8 transport — the LES cost estimates included both transportation segments required for disposal, i.e., from the proposed enrichment facility to the deconversion facility and from the deconversion facility to the ultimate disposal site, for each type of material being transported. As a result, the Staff concluded it was appropriate for LES to use the average of the two costs. *See id.* at 2-3.

4.72 This could be contrasted, the Staff witnesses indicated, with Dr. Makhijani's assertion that LES should have derived its cost estimate for transportation by adding the costs for transport of UF_6 and U_3O_8 , which incorrectly assumes that the cost information for each type of material — UF_6 and uranium oxide — refers only to one leg of the journey. In the Staff's estimation, this would not be

⁶⁶ Although the Staff described this information as coming from the TLI Chief Financial Officer, it is the Board's understanding that Mr. Fisk's title is CEO.

appropriate because the third-party cost estimates already provided include both segments of the transportation necessary to dispose of depleted uranium.⁶⁷

2. *Adequacy of Transportation Cost Estimate*

4.73 The NIRS/PC challenges to the LES evidentiary submissions regarding its transportation cost estimate fall roughly into two categories, i.e., concerns about (1) the viability of the evidentiary material that LES proffered in support of its estimate, in particular its use of two e-mails and a letter from TLI executive Rod Fisk (Fisk December 2004 E-mail; Fisk March 2005 E-mail; Fisk Letter) in lieu of having Mr. Fisk testify under oath; and (2) the substantive validity of that information, that is, whether that information provides an adequate estimate of the costs likely to be incurred in moving DU from the NEF to a deconversion facility, and then to a disposal facility.

4.74 Relative to the first concern, the procedures employed are worth noting. Mr. Krich was deposed regarding the nature of the LES cost estimates, including his discussions with Mr. Fisk. *See* NIRS/PC Exh. 226, at 12-14 (Deposition of Rod Krich (Aug. 26, 2005)). Moreover, the Fisk e-mails and letter were not the subject of in limine motions when they were included as supporting material for Mr. Krich's prefiled direct and rebuttal testimony and later were admitted into evidence at the October 2005 hearing without objection. *See* Tr. at 2453. NIRS/PC, however, still questioned their use on two grounds: (1) the documentary materials fail to meet the Staff guideline that cost estimates be sufficiently "documented," *see* NUREG-1757, at 4-10; and (2) the documents should not be given any weight before the Board, given their tainted lineage as hearsay submissions from a witness who was not made available to NIRS/PC for questioning during discovery or cross-examination.

4.75 As to the first point, we find the information, which was provided by a senior official of an independent third party, TLI, whose experience and expertise in nuclear materials transportation has not been challenged, is sufficiently detailed

⁶⁷The Staff went on to observe, however, that even if one accepted Dr. Makhijani's assumption that the cost estimates reflect only one portion of the journey, adding the two costs together would likely result in an excessively conservative cost estimate because not all costs would be incurred twice. According to the Staff, TLI stated that the overhead costs involved included material packaging, marking and labeling, communications, vehicle tracking, vehicle maintenance, driver training, security, loading and unloading of cargo, and insurance. Some of these cost elements may be incurred independently for each segment of the trip, i.e. loading and unloading; however, other elements, such as driver training, vehicle maintenance and tracking, and insurance, should not be counted twice as these costs would be shared between both segments of the trip. Additionally, the Staff asserted, the same trucks used to deliver the UF₆ to the deconversion facility would be able to take the U₃O₈ produced by the deconversion facility to the disposal site. *See* Staff Transportation Cost Rebuttal Testimony at 3-4; Tr. at 2508-09.

to document the basis for the LES estimate, both as it relates to the cost estimate amount and the impact of shipping distance on that estimate. More oblique, perhaps, is the issue whether, in this context, the LES withdrawal of Mr. Fisk as a witness (and a potential deponent), in the face of Mr. Krich's admission that he has no expertise in transportation cost estimation, *see* Tr. at 2460, provides a basis for disqualifying or disregarding this information, including the October 6 letter. Given, however, that Mr. Fisk was identified as the source of the information and, notwithstanding his removal from the LES witness list, seemingly could have, if NIRS/PC chose, been subjected to discovery and compelled to provide testimony before the Board, *see* 10 C.F.R. §§ 2.702(a), 2.706(a), we find no compelling basis for discounting the TLI hearsay information as unreliable. *Compare Tennessee Valley Authority* (Hartsville Nuclear Plant, Units 1A, 2A, 1B, and 2B), ALAB-367, 5 NRC 92, 121 (1977) (non-expert's testimony based on what he was told by anonymous expert stricken as unreliable hearsay).

4.76 On the additional matter of whether the information presented in the Fisk e-mails and letter, as modified by Mr. Krich, provides a reasonable transportation cost estimate, we are frank to state it is not apparent to the Board why LES chose to create what seems to be unnecessary confusion by requesting separate estimates from TLI for UF₆ and U₃O₈ for the entire NEF/deconversion/disposal transportation cycle for each when, in fact, each of these products generally will only be transported through a portion of that cycle. *See* Tr. at 2484. Nonetheless, given the evidence before us regarding the conservative nature of the TLI estimates and the relative insensitivity of those estimates to the distance the material must actually travel (overhead, and more specifically packaging, being a primary cost driver, *see* Tr. at 2511),⁶⁸ and the lack of any compelling contrary showing by NIRS/PC,⁶⁹ we conclude that the figure of \$0.85/kgU arrived at by Mr. Krich by converting the lower end cost values in the TLI estimates to per kgU and then averaging them is sufficient to meet the LES burden to provide, at this stage, a reliable cost estimate for transportation for use in the initial estimate

⁶⁸ Although not reflected on the evidentiary record before us (or posited as a item that would justify reopening that record) and, according to the information provided by Mr. Fisk, a factor (like shipping distance) that apparently is not likely to affect transportation costs significantly, the impact of sustained, radically higher fuel costs nonetheless might be an item for the Staff to consider as part of a periodic update to the LES dispositioning cost estimates.

⁶⁹ Although Dr. Makhijani in his rebuttal testimony sought to provide some evidence based on WIPP cost estimates that he indicated suggested the LES transportation estimate was grossly understated, *see* NIRS/PC Transportation Cost Rebuttal Testimony at 4-5, the information he proffers fails to provide sufficient granularity relative to transportation costs to be probative. At the same time, there is some indication that DOE transportation costs would be lower than the LES estimate, *see* Tr. at 2510. While it has no bearing on our ultimate determination here regarding the adequacy of the proffered LES initial cost estimate for transportation, *see supra* p. 624, the periodic update process nonetheless would be the vehicle by which any cost discrepancies would be addressed.

of decommissioning funding. We, therefore, resolve the portion of contention NIRS/PC EC-5/TC-2 related to transportation cost in favor of LES.

D. Findings Regarding Plausibility and Cost of Disposal

4.77 NIRS/PC also raised several challenges to the plausibility and cost of LES's private disposal strategy; namely, with paragraph I of contention NIRS/PC EC-6/TC-2, they claim that LES's \$1.14/kgU cost estimate for disposal presents a serious underestimation of the actual costs because its proposed strategy of near-surface, or "engineered trench," disposal is not plausible, and with contention EC-5/TC-2, NIRS/PC claims that the \$1.14/kgU cost figure is not reliable in that it lacks a factual basis and documentary support. We address each of these matters below.

1. Witnesses and Evidence Presented

4.78 LES presented a panel of two witnesses to address the issues associated with the plausibility and cost of DU_3O_8 disposal: (1) Rod Krich, Vice President of Licensing, Safety, and Nuclear Engineering for LES; and (2) Thomas E. Potter, an independent radiation protection consultant. As we note above, *see* Part IV.B.1, *supra*, Mr. Krich has previously testified before this Board and his background and qualifications are discussed at length in our first partial initial decision. Mr. Potter received a Bachelor of Science in Chemistry from the University of Pittsburgh and a Master of Science in Environmental Science with a Radiation Protection focus from the University of Michigan, and has more than 30 years of professional experience in the field of radiation protection. As an independent consultant, Mr. Potter provides technical advice to materials licensees on a range of radiation protection issues, including radiation assessments associated with operations and decommissioning, commenting on proposed radiation protection regulations, and conducting radiation protection program audits. He was hired by LES to testify as an expert witness about the proper waste classification of DU pursuant to 10 C.F.R. Part 61, as well as the radiological properties of DU as relevant to the plausibility of near-surface disposal of DU from the NEF. As it is relevant to those issues, Mr. Potter has experience in health physics, waste management, and environmental matters regarding the handling and processing of uranium, trans-uranium, fission product and activation product radionuclides, and facility decommissioning, including waste classification evaluations. *See* Prefiled Direct Testimony of Rod Krich and Thomas Potter on Behalf of [LES] Regarding Applicant's Strategy and Cost Estimate for the Private Sector Disposal of [DU] from the Proposed [NEF] (fol. Tr. at 2607) at 3-4 [hereinafter LES Disposal Direct Testimony].

4.79 The Staff presented a panel consisting of: (1) Timothy C. Johnson, NRC Project Manager for NEF licensing; (2) James Park, NRC Project Manager for environmental review of NEF application; (3) Jennifer Mayer, consultant for ICF Consulting; (4) Craig Dean, consultant for ICF Consulting; and (5) Donald Palmrose, an employee of Advanced Systems Technology and Management, Inc. *See* NRC Staff Testimony Regarding Disposal (fol. Tr. at 2831) at 1-2 [hereinafter Staff Disposal Direct Testimony]. The Board has previously described the background and qualifications of each of these witnesses in Part IV.B.1. For their part, NIRS/PC presented one witness, Arjun Makhijani, President of IEER. *See* Revised Direct Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES's Disposal Strategy and Cost Estimate (fol. Tr. at 2968) at 1 [hereinafter NIRS/PC Disposal Direct Testimony]. As with many of the other witnesses, Dr. Makhijani has previously testified before this Board and his background and qualifications are treated in Part IV.B.1.

4.80 Based on the foregoing, and the respective background and experience of the proffered witnesses, the Board finds that each of these witnesses is qualified to testify as an expert witness on the subject of the plausibility and cost of LES's disposal strategy.

2. Plausibility of Near-Surface Disposal

4.81 As part of its private dispositioning strategy, LES proposes that following deconversion of NEF-produced DUF_6 to DU_3O_8 at a commercial deconversion facility, the DU_3O_8 would be transferred to a facility where it can be disposed of by some method of near-surface disposal, most likely "engineered trench" disposal, the subject of paragraph I of NIRS/PC EC-6/TC-3. Essentially, NIRS/PC claim such disposal would not meet the 10 C.F.R. Part 61 requirements for land disposal of radioactive wastes.

4.82 As the Board discussed at length in our second partial initial decision, 10 C.F.R. Part 61 sets forth the licensing requirements for land disposal of LLRW, of which near-surface disposal is a subset. *See* LBP-06-8, 63 NRC at 263-68. Near-surface disposal, in turn, refers to disposal within 30 meters of the earth's surface, though burial deeper than 30 meters may be permitted under certain circumstances. *See id.* at 264 & n.18. "Engineered trench" disposal, the type of disposal referred to in paragraph I of NIRS/PC EC-6/TC-3, is a near-surface disposal method that involves disposal in a relatively shallow earthen structure or excavation and, according to LES witnesses Krich and Potter, "is one of the most commonly used methods of [LLRW] disposal, particularly in arid climates." *See* LES Disposal Direct Testimony at 7.

4.83 In their written testimony on this subject, Mr. Krich and Mr. Potter provided a brief explanation of what "engineered trench" disposal involves.

Generally, the disposal facility operator digs a trench to a depth of no more than 30 meters, with the specific trench parameters (e.g., depth, length, and width) determined based on the particular characteristics of the disposal site and the volume of waste requiring disposal. The containers holding the waste sit atop a stable structural pad surrounded by barrier walls made up of compacted clay, which is meant to provide both structural integrity and a relatively impermeable barrier to prevent migration of waste from the trench. The waste containers themselves are stacked tightly in layers in the bottom of the trench, and any remaining spaces between the containers are filled with materials such as sand, gravel, and concrete. After the trench is completely filled, a thick engineered cap consisting of clay and other fill materials is generally placed over the top of the waste and compacted to provide additional waste isolation and prevent migration. Additional material, such as gravel and rocks, may then be placed over the cap to provide for drainage and prevent erosion. *See id.* at 7-8.

4.84 Before we consider the merits of NIRS/PC's plausibility contention, it is important to note that the scope of the matters still at issue relative to this contention was narrowed considerably by our second partial initial decision, which concerned the environmental impacts of near-surface disposal. In that decision, the Board recognized that the Commission has found that, under existing NRC regulations, depleted uranium is appropriately categorized as low-level waste and, further, under a plain reading of 10 C.F.R. § 61.55(a), is deemed Class A waste. *See* LBP-06-8, 63 NRC at 265. The Board also noted in that decision, however, that the question of whether, as NIRS/PC assert, geologic disposal of depleted uranium from the NEF would be required, would be addressed in the context of the Board's ruling on NIRS/PC's remaining safety contentions. *See id.* at 268 n.22. Thus, the question facing the Board today is whether LES has established that "engineered trench" disposal, or some similar method of near-surface disposal, is plausible, or whether something more, such as geologic disposal, is required.

4.85 The parties all agree that waste classification does not necessarily end the inquiry into whether near-surface disposal is appropriate for NEF-generated DU. That the Commission has determined that DU is Class A waste merely makes that waste *eligible* for near-surface disposal. The final determination rests instead with the question of whether near-surface disposal meets the Part 61, Subpart C performance objectives. *See id.* at 275. In his written and oral testimony on this matter, Dr. Makhijani concluded that near-surface disposal of depleted uranium from the NEF cannot be considered a "plausible strategy" because the radiological properties of depleted uranium are "most comparable to transuranic (TRU) waste which is similar to the classification of Greater than Class C (GTCC) waste under 10 C.F.R. [§ 61.]55(a)" and "shallow land disposal for these wastes (TRU or GTCC) is generally not appropriate and they are considered to require deep geologic disposal." NIRS/PC Disposal Direct Testimony at 21. In other words, in Dr. Makhijani's estimation, near-surface disposal of

depleted uranium is unlikely to meet the radiation dose limits of Subpart C. *See* Revised Rebuttal Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning LES's Disposal Strategy and Cost Estimate (fol. Tr. at 2969) at 20 [hereinafter NIRS/PC Disposal Rebuttal Testimony]. Thus, Dr. Makhijani contended, "depleted uranium from the proposed NEF facility will require disposal in a deep geologic repository comparable to the Waste Isolation Pilot Plant (WIPP) now operating in New Mexico." NIRS/PC Disposal Direct Testimony at 26.

4.86 For their part, LES and the Staff took the same basic position on this issue, namely that near-surface disposal of DU from the NEF may be plausible at certain domestic facilities provided the particular site characteristics permit compliance with the technical requirements and performance objectives at that site. For each, whether near-surface disposal at a particular site would meet the requirements of Part 61 is the bottom-line inquiry relative to the plausibility of such disposal. *See, e.g.*, LES Disposal Direct Testimony at 9-11; Staff Disposal Direct Testimony at 5.

4.87 Despite the voluminous testimony and evidence presented on this matter, the Board's inquiry is fairly straightforward and does not require that we delve into the questions of the radiological properties of depleted uranium. As we explained in LBP-06-8, Envirocare has been licensed by the State of Utah, an Agreement State, to accept depleted uranium in the form and quantities that will be produced at the NEF. *See* LBP-06-8, 63 NRC at 279. In other words, the Utah Division of Radiation Control (DRC), the relevant Agreement State agency, determined that near-surface disposal of DU_3O_8 would meet the state analog to the Part 61 regulations and further imposed no quantity limitations on the Envirocare license. *See, e.g., id.* at 280. As LES witnesses Krich and Potter explained, LES contacted Envirocare and received confirmation that Envirocare indeed could dispose of depleted uranium from the NEF and, further, that Envirocare in fact has previously disposed of DU_3O_8 via shallow land burial utilizing a capped Class A disposal cell. *See* LES Disposal Direct Testimony at 15; LES Exh. 103 (Letter from A. Rafati, Envirocare, to E.J. Ferland, LES (Feb. 3, 2005)) [hereinafter Rafati Letter]. The DRC subsequently verified Envirocare's statements during a telephone conference with the Staff, stating that it has "no reservations about accepting DU in an oxide form (specifically DU_3O_8)" and that the Envirocare license contains no volume restrictions for acceptance of depleted uranium. *See* LES Disposal Direct Testimony at 16; LES Exh. 104, Attach. at 2 (Memorandum from M. Blevins, NRC, to Scott Flanders, NRC (Apr. 6, 2005)). Dr. Makhijani

presented no relevant evidence to controvert LES's showing that Envirocare is indeed licensed to accept DU_3O_8 without quantity limitation.⁷⁰

4.88 Based on the foregoing, and the relevant Board findings in LBP-06-8, it is apparent that near-surface disposal at Envirocare is most certainly a plausible strategy for disposal, in that Envirocare has the technical qualifications to dispose of DU and is in fact licensed to do so at that facility. Put another way, LES has adequately demonstrated that disposal at Envirocare is a reasonable and plausible strategy in that the Utah DRC has determined that near-surface disposal of DU at that site, without quantity limitation, would comply with the Part 61 performance objectives as currently in force. And as we have said before, it is not for this Board to question the validity of Envirocare's license, or the State of Utah's determination to license Envirocare to accept DU. Thus, we find that deep geologic disposal is not required for DU from the NEF.⁷¹

4.89 To the extent that LES is not required to have more than one plausible strategy,⁷² our inquiry could reasonably end here. We believe, however, that the testimony and evidence presented regarding, for example, the analysis of near-surface disposal of depleted uranium in the DOE Programmatic Environmental Impact Statement (PEIS), in combination with the fact that the Envirocare facility

⁷⁰In his written rebuttal testimony on this matter, Dr. Makhijani indicated that, contrary to LES and the Staff's testimony, amendment 22 to Envirocare's license demonstrates that the license does indeed contain a possession limit for depleted uranium, and that the NEF-produced DU would exceed the associated concentration limit. *See* NIRS/PC Disposal Rebuttal Testimony at 16. As Mr. Johnson testified for the Staff, however, this limitation is not a general limitation on depleted uranium disposal, but rather refers to the possession of a drum-check source that was specifically built for Envirocare for use in calibrating an instrument used to measure the quantity of depleted uranium in a given container, a point that was also confirmed by a letter from the DRC staff. *See* Tr. at 2878-79; Staff Exh. 44 (Letter from D. Finerfrock, State of Utah, Department of Environmental Quality, to P. Lohaus, NRC (Sept. 19, 2005)).

⁷¹As we noted in our partial initial decision regarding DU disposal impacts, our findings here regarding the appropriateness of near-surface disposal of DU hinge on the fact that the current Part 61 regulations mandate that DU is a Class A waste. As we said there,

the Commission has directed the staff to examine, outside of this adjudication, whether the quantities of depleted uranium from enrichment facilities warrant amending section 61.55(a)(6), or the waste classification tables of section 61.55(a). Should the Commission make a determination in the course of that rulemaking proceeding that section 61.55 or other portions of Part 61 need revision to address the impacts resulting from the waste stream from uranium enrichment facilities, such a determination may well require that licenses for near-surface disposal facilities, including Envirocare, be evaluated in light of any new requirements imposed by any revised Part 61 regulations.

LBP-06-8, 63 NRC at 286-87. In such a case, LES's disposal cost estimates would likewise have to be reevaluated by the Staff, an inquiry that presumably would be conducted in the context of the periodic update process.

⁷²Or, in this case, because LES has continued to pursue the private sector disposal strategy and related cost estimate, two plausible strategies — transfer to DOE and a separate private sector strategy.

actually has been licensed to accept unlimited quantities of DU_3O_8 for disposal, demonstrate that near-surface disposal at some other LLRW disposal facility with similar characteristics might be plausible as well.

4.90 As Mr. Krich averred in his written testimony, DOE “concluded that near-surface disposal of DU_3O_8 in a dry environment is acceptable from a radiological health standpoint.” LES Disposal Direct Testimony at 16 (citing LES Exh. 18, App. I (Final [PEIS] for Alternative Strategies for the Long-Term Management and Use of [DUF₆], DOE/EIS-0269, DOE Office of Nuclear Energy, Science and Technology (April 1999)) [hereinafter PEIS]). Specifically, as LES witnesses Krich and Potter further expounded on rebuttal, DOE conducted generic analyses of near-surface disposal for its own inventory of DU from deconversion operations, set forth in Appendix I to the PEIS, that indicated groundwater doses would be below regulatory limits for disposal facilities in “dry” or arid climates, including disposal in shallow earthen structures (e.g., engineered trenches). *See* LES Disposal Rebuttal Testimony at 11; *see also* PEIS sec. 2.4.5; PEIS App. I, sec. I.4. By contrast, the generic DOE analyses concluded that groundwater doses would exceed regulatory limits for land disposal in a “wet” or humid environment, including for both near-surface and deeper “mine” disposal. *See* LES Disposal Rebuttal Testimony at 11; PEIS sec. 2.4.5; PEIS App. I, sec. I.4. Notably, according to witnesses Krich and Potter, in conducting its analyses DOE considered a range of representative generic facilities with varying site characteristics and conditions that were selected “to represent the range of actual conditions that could occur,” *see* LES Disposal Rebuttal Testimony at 12 (quoting PEIS App. I at I-3 to I-4), and, further, “were generally selected in a manner intended to produce conservative estimates of impact [i.e., overestimation],” PEIS App. I at I-69. In addition, relative to the plausibility of near-surface disposal of DU from deconversion operations, DOE concluded in its Final EISs for its Paducah, Kentucky and Portsmouth, Ohio deconversion facilities that:

Studies conducted by [a DOE contractor] indicate that both the Nevada Test Site (NTS) (a DOE facility) and Envirocare of Utah, Inc. (a commercial facility) are potential disposal facilities for depleted uranium . . . [in that] either facility would have the capacity needed to dispose of the U_3O_8 product from the proposed DOE DUF₆ conversion program, and that the U_3O_8 material to be sent to these facilities would likely meet each site’s waste acceptance criteria.

LES Exh. 16, at 1-20 (Final Environmental Impact Statement for Construction and Operation of a [DUF₆] Conversion Facility at the Portsmouth, Ohio Site, DOE/EIS-0360, Oak Ridge Operations, DOE Office of Environmental Management (June 2004)) (citation omitted); LES Exh. 17, at 1-20 (Final Environmental Impact Statement for the Construction and Operation of a [DUF₆] Conversion

Facility at the Paducah, Kentucky Site, DOE/EIS-0359, Oak Ridge Operations, DOE Office of Environmental Management (June 2004)) (citation omitted).

4.91 Dr. Makhijani, for his part, eschewed reliance on the DOE PEIS in support of the plausibility and appropriateness of near-surface disposal of DU even in “dry” environments, averring that the PEIS actually supports the NIRS/PC argument that something more than near-surface disposal is required for DU from the NEF. Specifically, he asserted, the PEIS actually concluded that doses exceeding regulatory limits in “dry” environments would not occur within the first 1000 years following facility failure, but that exposures in excess of regulatory limits could occur several thousand years later, even in a dry environment, “if the cover material were to erode and expose the uranium material.” See NIRS/PC Disposal Rebuttal Testimony at 17 (quoting PEIS App. I at I-19).

4.92 DOE did not, for obvious reasons, explicitly use the term of art “plausible strategy” in the PEIS or the Paducah or Portsmouth EISs. At least to the Board’s knowledge, however, the implications of its analyses and related conclusions make it clear that DOE has made a reasoned determination that disposal of its inventory of DU_3O_8 via shallow burial at a facility located in a dry or arid environment is a plausible (i.e., reasonable or credible) strategy for disposing of that waste.

4.93 Given the combination of the representations by DOE regarding the suitability of DU for near-surface disposal at a facility with site characteristics and conditions falling within a certain range and the third-party representations by Envirocare and the Utah DRC that Envirocare can in fact accept DU for near-surface disposal, we conclude that LES has adequately demonstrated that its proposed near-surface disposal strategy is plausible. Accordingly, to the extent paragraph I of contention NIRS/PC EC-6/TC-3 contends otherwise, we resolve that portion of the contention in favor of LES.

3. Adequacy of LES Cost Estimate for Near-Surface Disposal

4.94 As noted above, NIRS/PC contest the validity of LES’s cost estimate for ultimate disposal of the converted DUF_6 in two respects: (1) first, with paragraph I of contention EC-6/TC-3, NIRS/PC asserts that LES “seriously underestimates” the costs of disposal of DU_3O_8 because “engineered trench,” or near-surface, burial is not an acceptable method for disposal of that waste; and (2) second, contention NIRS/PC EC-5/TC-2 asserts, in relevant part, that LES’s \$1.14/kgU cost estimate for disposal is insufficient because LES has provided no factual or documented support for that number.

4.95 The LES cost estimate of \$1.14/kgU for disposal of DU_3O_8 is based primarily on information provided by two commercial sources, Waste Control Specialists (WCS), a waste processing and disposal facility in Andrews County,

\$2.17/kgU, *see id.* at 19, and was not an offer to dispose of the material at that cost, *see id.* at 20.

4.99 In response to Dr. Makhijani's testimony, Mr. Krich asserted that "[n]one of Dr. Makhijani's assertions call into question the reasonableness or credibility of LES's DU disposal cost estimate." LES Disposal Rebuttal Testimony at 16. First, Mr. Krich declared that the fact WCS will not ultimately be responsible for setting its disposal prices does not undercut the MOA cost information given WCS provided that information based on (1) the current projected costs of the WCS facility; and (2) the volume of waste expected to be disposed of at that facility. *See id.* Second, the \$xx per cubic foot estimate used by LES to calculate its disposal cost estimate is "clearly conservative," averred Mr. Krich, when compared to the typical prices charged for low-level waste disposal at Envirocare. *See id.* Finally, with regard to Dr. Makhijani's argument that WCS cost estimates could change at any time, Mr. Krich stated that the purpose of the periodic adjustments to its decommissioning cost estimate is to account for such changes in costs, including disposal costs. *See id.* at 16-17.

4.100 On the basis of the evidentiary record before the Board, we cannot conclude that relative to either the estimate obtained for WCS or Envirocare, LES has obtained a true third-party estimate of the cost of near-surface disposal of NEF-generated DU of the type we previously have indicated would be sufficient to constitute a reliable estimate. With regard to the WCS estimate, WCS is not licensed to accept DU from the NEF and has no experience in disposing of radioactive waste such as NEF-generated DU. While we have repeatedly declined to evaluate the likelihood that WCS will receive a license to dispose of LLRW, including DU from enrichment operations, and express no view on that matter now, the crux of our inquiry relative to the reliability of third-party cost estimates goes to whether that entity is in a position to provide a credible estimate of a particular cost element based on its experience with the activity to which that cost estimate is related. We do not believe that WCS, at this juncture, is in a position to provide a reliable cost estimate for near-surface disposal of NEF-generated DU.

4.101 So too, we cannot find that the \$75 per cubic foot estimate provided to LES by Envirocare represents a reliable cost estimate for near-surface disposal of the concentrations and quantities of DU that will be generated by the NEF. First, that \$75 figure in no way represents an estimate of what Envirocare would charge LES to dispose of NEF-generated DU via near-surface methods at the Envirocare facility. To the contrary, that cost estimate, as NIRS/PC counsel pointed out during cross-examination of LES and staff witnesses, *see Tr.* at 2795, 2945, reflects an informal estimate of the amount Envirocare would charge for near-surface disposal of *reactor decommissioning waste*, not what it would

charge LES to dispose of DU generated from uranium enrichment operations at the NEF.⁷⁴

4.102 Furthermore, the letter provided to LES by Mr. Rafati of Envirocare, which states that the LES disposal cost estimate is “conservative,” falls short of providing reliable third-party support for LES’s cost estimate. As Dr. Makhijani pointed out, the \$1.14/kgU estimate apparently was not in the LES application at the time Mr. Rafati reviewed the numbers and found the LES estimate “conservative.” Rather, the application contained a range of \$1.47/kgU to \$2.17/kgU, and it is not clear to the Board (or, apparently, the Staff, *see* Tr. at 2947) what cost figures Mr. Rafati had in mind when he communicated to LES that its cost estimate represented a conservative estimate of what it would cost to dispose of DU₃O₈ at Envirocare. On cross-examination, Mr. Krich stated that Mr. Rafati was aware that the \$2.17/kgU cost figure contained in the NEF application represented an estimated cost of disposal in a concrete vault, and thus was irrelevant to his review of the LES cost estimate because Envirocare does not provide concrete vault disposal. *See* Tr. at 2797-98. But LES provided no evidence that this was the case and, in fact, the plain language of Mr. Rafati’s letter seems to suggest otherwise, stating that “the cost *range* presented in the current LES license application is a conservative estimate” of the cost of DU₃O₈ disposal at Envirocare. *See* Rafati Letter (emphasis added). Even were we to read the testimony and evidence in the light most favorable to LES (i.e., by assuming Mr. Rafati considered only the \$1.47/kgU estimate), Mr. Rafati’s statement that such a number is conservative does not, as Mr. Krich suggested, *see* Tr. at 2798, provide a basis for a finding that LES’s \$1.14/kgU cost estimate likewise is conservative.⁷⁵ Nor can the Board find, as we might otherwise have done, that the \$1.47/kgU figure represents a reliable estimate of the cost of near-surface disposal of DU₃O₈ given that this figure was not developed with the NEF in mind, but rather was derived from DUF₆ and DU₃O₈ disposition costs provided to the NRC in connection with LES’s earlier CEC application. *See* LES Exh. 83, tbl. 10.3-1 ([NEF SAR], ch. 10 (May 2005)).

4.103 The fact that LES has not obtained a reliable third-party estimate for this element of its dispositioning cost estimate does not, however, end our inquiry. As we noted above, *see supra* note 43, nothing in the applicable NRC regulations

⁷⁴ Notably, Ms. Mayer testified that the Staff was unaware that the \$75 per cubic foot cost estimate represented the cost of disposing of reactor decommissioning waste prior to Mr. Krich’s statement to that effect on cross-examination, *see* Tr. at 2945-46, and thus the Staff apparently did not have that information when it made its determination that the LES disposal cost estimate was sufficiently reliable to provide a basis for decommissioning funding.

⁷⁵ On the other hand, contrary to Dr. Makhijani’s assertions, it is not significant that Mr. Rafati’s letter did not represent an “offer” to provide disposal services at that cost. Neither the Staff nor the Board has ever found that a cost estimate must be, or even should be, presented in the form of an offer before it can be relied upon as a basis for estimating decommissioning funding.

or guidance documents requires that LES provide a third-party estimate as a basis for its cost estimate for a particular element of decommissioning funding. But, as we also noted there, an estimate from a third party certainly adds significantly to its reliability. Nonetheless, where, as here, no credible third-party estimate has been proffered, an applicant's summary showing to demonstrate the reliability of its cost estimate may well not suffice.

4.104 In this vein, LES contended that, aside from the specific estimates provided by WCS and Envirocare, there is sufficient additional testimony and evidence on the record to support a finding that LES's estimate of \$1.14/kgU is reasonable and conservative. Specifically, in his written and oral testimony on this matter, Mr. Krich set forth a series of cost figures from various sources that purportedly support a finding that LES's \$1.14/kgU estimate is more than sufficient. First, Mr. Krich declared, DOE's cost estimate for near-surface disposal of DU_3O_8 is \$xxxx/kgU based on the price quote provided to a DOE contractor by Envirocare of \$xxxxx per cubic foot, a figure nearly five times less than LES's cost estimate. *See* Tr. at 2802-03; LES Exh. 87, at 10, 13 (Letter from R.M. Krich, LES, to Director, NMSS, NRC (Aug. 12, 2005)). Second, Mr. Krich pointed out, this number is consistent with an article from the DOE Web site that identifies a disposal cost range of approximately \$250 to \$1100 per cubic meter, which translates to roughly \$7 to \$31 per cubic foot. *See* LES Disposal Direct Testimony at 17; Tr. at 2805-06; LES Exh. 108 (Excerpt from DOE Web site, Frequently Asked Questions, DUF₆ Management and Disposal (printed Sept. 14, 2005)). Finally, according to Mr. Krich, the testimony of LES witness Thomas LaGuardia provides further support for the reasonableness and conservativeness of the LES estimate, in that Mr. LaGuardia informed Mr. Krich that the typical fees charged by Envirocare for commercial LLRW disposal are in the range of \$25 per cubic foot. *See* LES Disposal Direct Testimony at 18 (citing Prefiled Direct Testimony of Rod Krich and Thomas LaGuardia on Behalf of [LES] Regarding the Adequacy of the Contingency Factor Applied by LES to Its Cost Estimate for [DU] Dispositioning (fol. Tr. at 3096)); Tr. at 2807-08.

4.105 There is no doubt that the record before us contains a great deal of evidence about various disposal costs. The record contains evidence of what Envirocare might charge to dispose of a variety of types of low-level waste, including reactor decommissioning waste and bulk contaminated soil. It contains evidence of what Envirocare might charge DOE to dispose of its inventory of DU waste. But what the record does not contain is a sufficiently reliable statement from a knowledgeable, experienced third party, or a thorough analysis from a qualified and credible source, of the estimated cost of disposing of NEF-generated DU. Each of the costs identified by Mr. Krich that purportedly support a Board finding that LES's \$1.14/kgU estimate is conservative go to the particular cost estimate for disposing of that particular type and quantity of waste, which nonetheless has not been demonstrated to be the cost of disposing of DU generated at the

NEF. LES's cost estimate may well be reasonable, particularly when compared with what appear to be the going rates for low-level waste disposal generally, but reasonableness does not, in and of itself, beget reliability.⁷⁶ We decline to rest our public health and safety findings on a cost estimate that, while perhaps not wholly unreasonable on its face, nonetheless is fundamentally unsupported by either a true third-party estimate or a thorough cost analysis that reflects specific consideration of material of the type and quantity that is being contemplated in this instance.

4.106 Thus, based on the testimony and evidence on the record before the Board, we are unable to conclude that LES has carried its burden of demonstrating that its disposal cost estimate is based on documented and reasonable assumptions such that the \$1.14/kgU figure presented by LES is sufficiently reliable to provide an appropriate basis for this portion of LES's decommissioning cost estimate and associated funding. Accordingly, to the extent contention NIRS/PC EC-5/TC-2 and paragraph I of contention NIRS/PC EC-6/TC-3 contest the validity of LES's disposal cost estimate, LES has failed to prevail on those contentions.

E. Findings Regarding Adequacy of Contingency Factor

4.107 As we previously noted, one of the elements of the LES decommissioning cost estimate challenged by NIRS/PC in its contention EC-5/TC-2 is the use of a 25% contingency factor, which NIRS/PC challenges as inadequate on several counts. In relevant part, this contention provides:

Louisiana Energy Services, L.P., (LES) has presented estimates of the costs of decommissioning and funding plan as required by 42 U.S.C. 2243 and 10 C.F.R. 30.35, 40.36, and 70.25 to be included in a license application. See Safety Analysis Report 10.0 through 10.3; ER 4.13.1. Petitioners specifically contest the sufficiency of such presentations as based on (1) *a contingency factor that is too low . . .*

LBP-04-14, 60 NRC at 78 (emphasis added). More specifically, NIRS/PC contended that this figure is inadequate because (1) "scaling" uncertainties alone warrant a 25% contingency factor, *see* Revised Direct Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning the Contingency Factor Applicable to LES's Cost

⁷⁶ Though we conclude the record contains insufficient evidentiary support to explain adequately this significant differential, there may well be merit to the NIRS/PC position that Envirocare might have quoted DOE a "very favorable price" based on the large quantities of DOE depleted uranium waste, which might in part account for the difference between the LES and DOE disposal cost estimates, *see* NIRS/PC Reply Findings at 31, Tr. at 2810, particularly in light of the Staff's statement in its proposed findings of fact and conclusions of law to the effect that Envirocare negotiates its prices with individual clients, *see* Staff Proposed Findings at 52.

Estimate (fol. Tr. at 3152) at 10 [hereinafter NIRS/PC Contingency Factor Direct Testimony]; (2) LES improperly relied upon costs associated with WCS or Envirocare in arriving at its disposal cost estimate, *see id.* at 10-13; and (3) the triennial adjustment under 10 C.F.R. § 70.25(e) is intended to account only for minor decommissioning cost estimate modifications, *see id.* at 14-16.

1. Witnesses and Evidence Presented

4.108 In dealing with this issue, LES proffered a two-person panel consisting of Rod Krich, LES Vice President of Licensing, Safety, and Nuclear Engineering, and Thomas S. LaGuardia, President of TLG Services. Mr. Krich's qualifications have been described previously. *See* Part IV.B.1, *supra*. Mr. LaGuardia, who holds a Bachelor of Science in Mechanical Engineering from Polytechnic Institute of Brooklyn and a Master of Science in Mechanical Engineering from the University of Connecticut, is a registered Professional Engineer in Connecticut, New York, New Jersey, Virginia, and California and a Certified Cost Engineer. With a total of 37 years of experience in the nuclear industry, during the last 32 years Mr. LaGuardia has specialized in the field of decontamination and decommissioning. As TLG Services president since 1982, he has overseen this consulting engineering company's operations as it provides planning and management for decontamination and decommissioning projects and decommissioning cost estimating and funding support for power plants and other nuclear facilities, including preparing decommissioning feasibility and cost studies that assess handling, packaging, storage, and disposal requirements for nuclear waste. *See* Prefiled Direct Testimony of Rod Krich and Thomas LaGuardia on Behalf of [LES] Regarding the Adequacy of the Contingency Factor Applied by LES to Its Cost Estimate for [DU] Dispositioning (fol. Tr. at 3095) at 3-4 [hereinafter LES Contingency Factor Direct Testimony].

4.109 The Staff's panel regarding this contingency factor issue consisted of Timothy C. Johnson, Jennifer Mayer, and Craig Dean, all of whom previously testified regarding other aspects of the safety matters at issue in the October 2005/February 2006 evidentiary hearings and whose training and experience have been described previously. *See* Part IV.B.1, *supra*. So too, the sole NIRS/PC witness on this matter, Dr. Arjun Makhijani, was a witness on other matters and his training and experience likewise have been described previously. *See* Part IV.B.1, *supra*.

4.110 Based on the respective qualifications presented in their written testimony on the adequacy of the LES contingency factor, the Board finds that each of the LES, Staff, and NIRS/PC witnesses is qualified as an expert on the contingency factor aspect of this financial assurance matter for the purposes of this proceeding.

4.111 As to the specifics of the evidentiary presentations regarding this item,

while noting that LES has committed to a 25% contingency factor to cover unforeseeable costs such as industrial accidents and unexpected construction delays or operational shutdowns, NIRS/PC witness Makhijani contended that this figure (or certainly anything less than 25%) will be insufficient for a number of different reasons. One is the inadequacy of the LES deconversion cost estimate, shortfalls from which will result in the amount set aside under the contingency factor also being inadequate to cover all the costs associated with deconversion. A principal basis for Dr. Makhijani's concern about the LES deconversion cost estimate is his assertion that its private deconversion option is based on COGEMA's "W" facility in Pierrelatte, France. Noting that this facility has a throughput that is more than 2.5 times larger than the deconversion plant that would be built to process the DUF_6 from the proposed NEF, Dr. Makhijani cited an LLNL report that he declared indicated the unit cost of a deconversion facility producing DU_3O_8 would increase by approximately 73% if the facility throughput is reduced by 50%. According to Dr. Makhijani, this significant scaling uncertainty, along with previously identified problems with the LES "Americanization" cost modifications and the fact that the LES cost estimate is based on preliminary design information, means that a contingency factor of 25% will not be adequate to cover foreseeable costs, much less unforeseeable costs. *See* NIRS/PC Contingency Factor Direct Testimony at 10; Revised Rebuttal Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning the Contingency Factor Applicable to LES's Cost Estimate (fol. Tr. at 3152) at 5-7 [hereinafter NIRS/PC Contingency Factor Rebuttal Testimony].

4.112 So too, Dr. Makhijani maintained, a contingency factor of 25% is unlikely to be sufficient to cover the inadequate LES cost estimate for foreseeable disposal expenses, making it inadequate to cover unforeseen expenses as well. Shortfalls in funding to cover both noncontingent disposal costs and otherwise contingent costs will result from LES reliance on what Dr. Makhijani contended is wholly unreasonable DU disposal cost information from either Envirocare or WCS, the former having provided only a vague and unsupported statement and the latter lacking a license to accept radioactive waste. Nor did he accept LES and Staff assertions that a 25% contingency factor is adequate given the supposed "simple" nature of such disposal by shallow land burial. Such a claim, he asserted, is directly contrary to a National Academy of Sciences/National Research Council finding so as to make such disposal unprecedented and highly uncertain, as well as being suspect because an environmental impact analysis of DU shallow land disposal has not been prepared in this proceeding. *See* NIRS/PC Contingency Factor Direct Testimony at 10-13; NIRS/PC Contingency Factor Rebuttal Testimony at 7-8.

4.113 Finally, Dr. Makhijani suggested that the triennial cost adjustment will be inadequate to mitigate the impacts of shortcomings in the various LES cost

estimates, notwithstanding the contingency factor.⁷⁷ According to Dr. Makhijani, the triennial cost adjustment is meant to allow only minor modifications to the decommissioning cost estimate to address changes such as fluctuations in inflation rates, not major adjustments to reflect the cost of significant departures from the decommissioning funding plan. His demonstration that LES has failed to include an adequate cost estimate for the neutralization of HF and the low-level waste disposal of the resulting CaF₂, Dr. Makhijani asserted, establishes that the costs of DU land disposal will be far higher than what LES has proposed, causing the NEF to shut down after 3 to 6 years without covering these higher decommissioning funding costs, notwithstanding the triennial adjustment. *See* NIRS/PC Contingency Factor Direct Testimony at 14-16.

4.114 According to LES witnesses Krich and LaGuardia, the 25% contingency factor was developed as a component of estimated decommissioning costs that must be generated by an applicant to address the Atomic Energy Act and agency requirements that mandate such cost estimates. *See* LES Contingency Factor Direct Testimony at 4-5 (citing 42 U.S.C. § 2243; 10 C.F.R. §§ 30.35, 40.36, 70.25). Further, these LES witnesses declared, this contingency factor amount is the product of Staff guidance to all materials license applicants found in NUREG-1757, which provides:

Because of the uncertainty in contamination levels, waste disposal costs, and other costs associated with decommissioning, the cost estimate should apply a contingency factor of 25 percent to the sum of all estimated decommissioning costs. The 25 percent contingency factor provides reasonable assurance for unforeseen circumstances that could increase decommissioning costs, and should not be reduced or eliminated simply because foreseeable costs are low.

NUREG-1757, at A-29. Also of note, these LES witnesses asserted, is the reliance placed by the Staff in NUREG-1757 on an early guidance document, NUREG/CR-6477, that applied a 25% contingency factory to estimated decommissioning costs associated with power reactors. *See* LES Contingency Factor Direct Testimony at 4-5.

4.115 Acknowledging that LES has committed to apply a 25% contingency as part of the LES decommissioning cost estimate in response to this guidance and an October 20, 2004 Staff Request for Additional Information, these LES witnesses also declared that this estimate is, in fact, appropriate. According to Mr. LaGuardia, based on his experience since the 1970s in preparing decommissioning cost estimates for power reactors, including preparing the initial cost estimate study for the Atomic Industrial Forum in 1976 that involved determining the

⁷⁷ In fact, as we noted above, *see supra* note 23, LES has committed to annual adjustments of its dispositioning cost estimate.

appropriate amount for such a contingency, a 25% contingency is adequate to account for unforeseen circumstances that fall within the defined scope of projects, such as power reactor decommissioning, that are considerably more complex than the decommissioning and DU dispositioning that will be involved with the proposed NEF. In this regard, Mr. LaGuardia noted that as to each of the three activities or operations that must be taken into account relative to DU — transportation, deconversion, and disposal — all have relatively low levels of uncertainty associated with them so as not to be likely to generate substantial cost increases. *See id.* at 6-9.

4.116 According to Mr. LaGuardia, the LES estimate for DU transportation was developed based on specific, conservative information obtained from a credible, experienced vendor. Moreover, the potential uncertainties associated with such transportation, which has been going on safely within the United States for decades, is limited, according to Mr. LaGuardia, because the drivers involved have diligently checked and exemplary records, and the vehicles involved are high quality and subjected to inspection before each trip. So too, according to Mr. LaGuardia, as described in the LES testimony, the deconversion of UF_6 to U_3O_8 has its basis in a well-understood chemical process that has been successfully utilized in Europe for more than 20 years. Moreover, according to LES witness Krich, Dr. Makhijani's concerns about scaling are misplaced, given that Urenco's Capenhurst, United Kingdom facility, rather than the "W" plant, was used as the basis for its private deconversion facility cost estimate and that estimate was based on appropriate information, as was discussed in other LES deconversion strategy and cost issue testimony. The same is true relative to the cost estimate for DU disposal in an engineered trench, which Mr. LaGuardia declared he found fairly predictable both as to logistics and cost, given his experience in dealing with Envirocare and other LLRW disposal services in submitting fixed-price bids that require a high degree of certainty. He also found that to be the case for the WCS estimate that underlies the LES cost figure for disposing of DU_3O_8 . *See id.* at 9-10; Prefiled Rebuttal Testimony of Rod Krich and Thomas LaGuardia on Behalf of [LES] Regarding the Adequacy of Applicant's Contingency Factor (fol. Tr. at 3097) at 3-4 [hereinafter LES Contingency Factor Rebuttal Testimony]. Further, Mr. LaGuardia indicated on cross-examination that, based on his experience, a disposal process that involved emplacement in a geologic repository would not involve a level of difficulty that would cause him to recommend a contingency factor of more than 25%. *See Tr.* at 3115-19.

4.117 As to the 25% figure, Mr. LaGuardia found it to be more than adequate in light of what the figure is intended to cover, i.e., potential uncertainties falling within the scope of DU dispositioning activities rather than speculative events that do not arise directly from the dispositioning activities. In this regard, he noted that the flat 25% figure, as opposed to a line-item type estimate sometimes used for facility decommissioning, is more than adequate. While more complex

decommissioning projects such as power reactor facilities may well use a line-item breakdown for contingency estimate activities, such as decontamination, removal, packaging, shipping, and disposal, with some items assigned low factors (such as 15% project management) and others given very high figures (such as 75% for reactor vessel segmentation), there is nothing about the LES project that suggests the need for such segmentation. Indeed, Mr. LaGuardia observed, substantial “real world” experience has demonstrated that when such contingencies are individually broken out and averaged, the result is an overall contingency of no more than 25%. *See* LES Contingency Factor Direct Testimony at 10-11; *see also* Tr. at 3099-3103.

4.118 With regard to the nature of the contingency factor itself, Mr. LaGuardia testified that it is intended to account for any unforeseen circumstances within the scope of the work that are not accounted for in the base cost estimate. According to Mr. LaGuardia, relative to DU disposition, the defined project scope would include DU transportation to and from a deconversion facility, DUF_6 deconversion to DU_3O_8 , and near-surface disposal of the DU_3O_8 at a licensed LLRW disposal facility, while the LES base cost for DU dispositioning would be the aggregate of the cost estimates associated with each of the constituent activities as derived from cost information provided by relevant third-party commercial sources. Mr. LaGuardia further asserted that examples of unforeseen circumstances that the contingency factor is intended to cover are such things as a drill breaking, heavy equipment mechanical failure, disposal trench flooding, or an industrial accident. The increased costs of such events are deemed to be within the defined scope of the project because they occur during conduct of an activity that is included in the base cost estimate, but are unforeseeable because they cannot be predicted. *See* LES Contingency Factor Direct Testimony at 12; *see also* Tr. at 3103-04.

4.119 Finally, LES witnesses Krich and LaGuardia found the NIRS/PC characterization of the section 70.25(e) triennial update to be unduly narrow. They first noted that, besides having to update the decommissioning costs every 3 years, LES will be required by commitment and license condition to update its DU dispositioning cost estimate annually after the first triennial review. Further, consistent with the Staff’s NUREG-1757 guidance, these LES witnesses asserted that once an additional cost or cost increase, whether major or minor, becomes foreseeable, a licensee must account for that additional cost and provide appropriate funding. As a consequence, these LES witnesses maintained, the periodic update process provides an additional assurance that adequate facility decommissioning and waste dispositioning funds will be available when needed. *See* LES Contingency Factor Rebuttal Testimony at 5-6 (citing NUREG-1757, at 4-10).

4.120 In their testimony, staff witnesses Johnson, Mayer, and Dean noted that the purpose of the contingency factor is to ensure that funds are available

to pay for any unforeseen circumstances that could increase decommissioning costs. On the other hand, factors that affect decommissioning costs and are foreseeable should be accounted for in the cost estimate. This includes costs that, while foreseeable, are not known for certain; such uncertain costs should be accounted for in the decommissioning cost estimate, using the best available documentation. As such, the Staff witnesses asserted, items such as the scaling factors cited by NIRS/PC, which are already identified, are matters that should be addressed in connection with the current LES cost estimate, and not put forth as a reason for applying a contingency factor. *See* NRC Staff Testimony Regarding the Contingency Factor Used by LES in the Decommissioning Cost Estimate (fol. Tr. at 3128) at 3 [hereinafter Staff Contingency Factor Direct Testimony]; NRC Staff Rebuttal Testimony Regarding Contingency Factor (fol. Tr. at 3130) at 2 [hereinafter Staff Contingency Factor Rebuttal Testimony].

4.121 These Staff witnesses also observed that as circumstances change over time, a licensee must account for those changes through periodic updates in its DFP. In the case of LES, the Staff witnesses noted, this will be done yearly for tails disposition costs in accordance with a license condition and, under agency regulations, every 3 years for facility decommissioning. If the costs of decommissioning increase, according to the Staff witnesses, the contingency factor would not provide a basis for LES to seek to keep its funding level constant on the premise that the increase is accounted for by the contingency. Those increased costs would be foreseeable as well, such that LES would be required by the agency's regulations and the license condition to increase its decommissioning fund to cover those costs. *See* Staff Contingency Factor Direct Testimony at 3-4.

4.122 The Staff's witnesses also declared that they accepted a 25% contingency for the NEF based on the fact that the decommissioning activities involved with the NEF were relatively simple and straightforward such that, consistent with NUREG-1757, they deemed it extremely unlikely that unforeseen costs would become so large that the 25% contingency would become insufficient. *See id.* at 4-5.

4.123 Finally, the Staff expressed its disagreement with the NIRS/PC position that the required, periodic adjustments under section 70.25(e) will only cover minor cost modifications, asserting that such a position is inconsistent with its NUREG-1757 guidance and would undermine the very purpose of the requirement. According to the Staff testimony, changes in facility conditions, operations, or expected decommissioning procedures would need to be accounted for in the periodic cost updates and could be substantial if, for example, a licensee switched its decommissioning cost estimate from one based on unrestricted site release to one involving restricted site release conditions. *See* Staff Contingency Factor Rebuttal Testimony at 2-3. Staff witness Johnson also noted on redirect examination, however, that the periodic updates did not mitigate in any way the need for an appropriate contingency factor. *See* Tr. at 3150.

2. Adequacy of 25% Contingency Factor

4.124 In assessing the parties' presentations regarding the 25% contingency factor, as should be apparent from the Board's discussion regarding the LES cost estimates for other aspects of its DFP, we are in basic agreement with the NIRS/PC assertion, as reflected in the Staff's guidance regarding a section 70.25 decommissioning funding plan, that the cost estimate provided in an applicant's DFP for a uranium enrichment facility must encompass those foreseeable activities associated with decommissioning the site chosen by the applicant, including waste disposition, and must provide a credible estimate of the cost of undertaking those activities, i.e., an estimate that is based on documented and reasonable assumptions and is reasonably accurate in portraying the direct and indirect costs involved in decommissioning under routine facility conditions. *See* SRP at 10-1; NUREG-1757, at 4-9, A-26. The problem for NIRS/PC, however, is that the contingency factor under challenge is directed at encompassing the unforeseeable elements that arise in the course of the dispositioning process. As a consequence, their efforts to challenge the adequacy of various foreseeable items associated with the LES cost estimates, including deconversion facility scaling and DU disposal methods, *see* NIRS/PC Reply Findings at 32-33, are, at least as they relate to the contingency factor, wholly misplaced. The viability of those estimates should have been, and indeed has been, questioned as a direct challenge to those cost estimate elements, rather than as part of an attempt to use the contingency factor as a bootstrap to increase funding to cover otherwise foreseeable costs. As such, we find the renewed NIRS/PC challenges to these items fail to provide any grounds for increasing or otherwise modifying the 25% contingency factor adopted by LES, a figure we find on solid footing consistent with the reasoning outlined in Mr. LaGuardia's testimony.⁷⁸

4.125 The Board also thinks it worth noting in this context that we find misplaced, as well as inaccurate, NIRS/PC's assertion that the periodic adjustment under section 70.25(e) has some bearing on the adequacy of the contingency factor because that adjustment cannot be the basis for major revisions in an applicant's DFP to address new information. In making this argument, NIRS/PC seem to assume that the Board's willingness to approve the LES decommissioning funding in this instance is tied directly to an assumption on our part, albeit erroneous, that we need not be concerned with the accuracy of the LES cost estimates because the

⁷⁸In this regard, during cross-examination of Mr. LaGuardia, *see* Tr. at 3117-20, NIRS/PC counsel did pose a series of questions regarding the adequacy of the 25% contingency factor if it were determined that deep rather than shallow disposal were required for the DU associated with operation of the NEF. Although, as we discuss in this opinion, *see* Part IV.D.2, *supra*, we find an adequate basis for the LES plan to utilize shallow disposal, we also find Mr. LaGuardia's testimony provides a reasonable basis for utilizing a 25% contingency factor even if deep disposal were the disposal option employed by LES.

periodic adjustment provides a safety valve by which everything eventually will work out to correct LES mistakes and inaccuracies at some point in the future.

4.126 As we believe we have made apparent with this ruling, a cost estimate that lacks a reliable basis is not one that the Board will endorse as the basis for a decommissioning funding plan. Although, as the Commission has made apparent, the Board is not to be involved simply in “formalistic” redrafting in connection with such a plan, *see Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 9 (1996), if the applicant’s cost estimate lacks sufficient support regarding the direct and indirect costs involved, then the availability of the periodic adjustment should not be the basis, in and of itself, for passing the plan forward with the hope that its deficiencies will be rectified at some point in the future.

4.127 On the other hand, as it is often described in the vernacular, “stuff happens.” As a consequence, to the degree future developments impact upon the cost of otherwise foreseeable items, as the periodic adjustment recognizes, regardless of the size of the change or revision that is needed, the cost estimates, and the decommissioning funding for which they provide the basis, would be adjusted as they become apparent through that process.⁷⁹ The Board thus is unable to endorse the crabbed NIRS/PC view of the periodic adjustment and its purpose.

4.128 In sum, we conclude that on the basis of the record before the Board, LES has met its burden to establish the sufficiency of a proposed contingency factor of 25%.⁸⁰

⁷⁹In their testimony and proposed findings, NIRS/PC made much of a scenario in which LES enters bankruptcy within several years of starting operations because of significant increases in disposal costs as a result of having to use deep rather than shallow disposal. Although the Board’s substantive findings regarding disposal do not support this scenario, *see* Part IV.D, *supra*, the Board also finds nothing in this record that causes us to conclude that the agency’s existing authority to deal with such circumstances through enforcement orders and other mechanisms, including the periodic updates, *see* Tr. at 3138-39, is insufficient to address such an event.

⁸⁰As part of their challenge to the LES-proposed contingency factor, NIRS/PC made the point that there was no testimony regarding the contingency factor applicable to the DOE cost estimate to provide deconversion and disposal services. *See* NIRS/PC Proposed Findings at 119-20. Although the Board has previously ruled that the sufficiency of the DOE cost estimate is not subject to litigation in this contested portion of the NEF licensing proceeding, *see* August 2005 Contention Ruling at 21-22, we note that this subject (along with a number of others, including financial assurance instruments, nuclear criticality, materials compatibility, fire safety, and cylinder rupture accidents) will be addressed in the context of our partial initial decision regarding the mandatory or uncontested portion of this proceeding.

V. SUMMARY FINDINGS OF FACT AND CONCLUSIONS OF LAW

5.1 In its application and on numerous subsequent occasions, LES has indicated that its preferred option for disposition of the NEF-generated waste material was to utilize a private deconversion facility followed by commercial disposal, with DOE disposition services being a secondary possibility. As a consequence, its various financial assurance-related cost estimates, including those for deconversion and disposal services, have been based on its preferred private disposition strategy. Although we conclude in this decision that, in the face of challenges by Intervenor NIRS/PC, the LES private deconversion and disposal strategies are plausible and certain elements of those private disposition-related cost estimates have been shown to be reliable, i.e., the costs associated with CaF_2 disposal, DUF_6 cylinder management costs, DU transportation, and the contingency factor applied to its overall dispositioning cost estimate, we also find that the reliability of two major contested elements of those estimated costs, i.e., the costs associated with private deconversion and private near-surface disposal services, are not adequately supported on the record before us.

5.2 As a consequence, as it is relevant to the financial assurance and decommissioning funding findings and determinations that must be made by the Staff in accordance with 10 C.F.R. §§ 30.35, 40.36, and 70.25, including ensuring the applicant has in place sufficient funding mechanisms to assure facility decommissioning, the Staff must utilize, in toto,⁸¹ the cost estimates attendant to the “plausible strategy” of the United States Department of Energy providing disposition services in accordance with section 3113 of the USEC Privatization Act, 42 U.S.C. § 2297h-11. Those costs estimates, which were not at issue in this contested portion of this proceeding, will be one of the subjects of the Board’s mandatory hearing-related partial initial decision.⁸²

⁸¹ Given the central role of the deconversion and disposal estimates in establishing the overall LES decommissioning cost estimate, as well as some uncertainty, at least on the current record, about the exact relationship between each of the individual elements of the LES cost estimate vis à vis the DOE cost estimate, we are unwilling to attempt to substitute the individual components of the LES estimate for items in the DOE estimate, or vice versa.

⁸² The result of our ruling today puts LES in the same posture it would have been if (as it could have) it had placed principal reliance upon DOE deconversion and disposal as the basis for its plausible strategy and its financial assurance cost estimates. Whether any future LES-proffered cost estimates associated with a private deconversion and disposal strategy would be sufficient to serve as the basis for supplanting or supplementing the DOE cost estimates as a component of the LES decommissioning funding plan, and in what context such cost estimates would be considered (e.g., periodic adjustment, license amendment), are matters for future consideration if and when such an LES showing is presented.

6.1 Pursuant to 10 C.F.R. § 2.713, it is, this 31st day of May 2006, ORDERED that this Third Partial Initial Decision will constitute a final decision of the Commission forty (40) days from the date of issuance, i.e., on *Monday, July 10, 2006*, unless a petition for review is filed in accordance with 10 C.F.R. § 2.341, or the Commission directs otherwise. Any party wishing to file a petition for review on the grounds specified in 10 C.F.R. § 2.341(b)(4) must do so within fifteen (15) days after service of this Third Partial Initial Decision. The filing of a petition for review is mandatory for a party to have exhausted its administrative remedies before seeking judicial review. Within ten (10) days after service of a petition for review, parties to the proceeding may file an answer supporting or opposing Commission review. Any petition for review and any answer shall conform to the requirements of 10 C.F.R. § 2.341(b)(2)-(3).

6.2 Although this ruling resolves all contested matters before the Licensing Board in connection with the December 2003 application of LES for authorization to construct and operate the NEF, Staff issuance of a 10 C.F.R. Part 70 license authorizing the construction and operation of that facility must abide, among other things, the issuance by this Board of its partial initial decision regarding the uncontested, mandatory hearing portion of this proceeding.

6.3 Additionally, because a portion of the evidentiary hearing and certain exhibits involved information that was claimed to be proprietary under 10 C.F.R. § 2.390, at the time of issuance this Decision is being treated as containing proprietary information pending further review. In an effort to expedite the review process, the Board today is providing to the parties by overnight/express mail (or in the case of the Staff, internal agency mail) copies of this Decision that contain proposed redactions based upon the Board's understanding of what items previously have been identified as proprietary information.⁸³ On or before *Tuesday, June 6, 2006*, LES, NIRS/PC, and the Staff shall provide the Board with a joint filing outlining each (1) proposed redaction from this Decision to which there is no objection; (2) proposed redaction from this Decision to which there is an objection; and (3) additional proposed redaction that has not been identified by the Board. If any party seeks an additional proposed redaction, the particular word or phrase should be specified; blanket requests for withholding are disfavored. Further, in accordance with section 2.390, the party seeking a proposed redaction (whether or not identified by the Board) shall at the same time provide a supplement to the joint report that describes with specificity (as supported by any necessary affidavits) the reasons for withholding each proposed redaction from the public. Responses to proposed redactions by any

⁸³In the absence of a previous Board ruling regarding a particular withholding claim, the Board's effort to identify proposed redactions is without prejudice to the right of any party to claim that any information in this Decision is, or is not, proprietary or otherwise sensitive so as to warrant being withheld from public disclosure.

party objecting to the redaction shall be filed on or before *Friday, June 9, 2006*. Thereafter, following a final ruling on any proposed redactions, the Board will make this Decision publically available.

THE ATOMIC SAFETY AND
LICENSING BOARD⁸⁴

G. Paul Bollwerk, III
ADMINISTRATIVE JUDGE

Paul B. Abramson
ADMINISTRATIVE JUDGE

Charles N. Kelber
ADMINISTRATIVE JUDGE

Rockville, Maryland
May 31, 2006

⁸⁴ Copies of this Partial Initial Decision were sent this date by overnight express delivery to counsel for (1) Applicant LES and (2) Intervenors NIRS/PC. Copies for counsel for the Staff were placed in the agency's interoffice mail.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 70-3103-ML

LOUISIANA ENERGY SERVICES, L.P.
(National Enrichment Facility)

June 2, 2006

The Commission considers a petition for review of two Atomic Safety and Licensing Board decisions, one a partial initial decision on the environmental impacts of depleted uranium disposal, and the second a related Board order ruling on summary disposition motions. The Commission affirms and supplements the Boards' decisions, and supplements the NRC Staff's Final Environmental Impact Statement (FEIS) discussion of the impacts of depleted uranium disposal.

NATIONAL ENVIRONMENTAL POLICY ACT

Under NEPA standards and our environmental regulations it is appropriate to consider reasonably foreseeable environmental impacts of a proposed action, even if they are only indirect effects.

NATIONAL ENVIRONMENTAL POLICY ACT

An NRC environmental impacts analysis of depleted uranium disposal impacts does not require a full-scale, site-specific licensing review under 10 C.F.R. Part 61. The Commission would expect that the appropriate state or federal regulatory authority, such as an Agreement State, will conduct any necessary site-specific

evaluation to confirm that applicable radiological dose limits and standards can be met at a particular site.

RULES OF PRACTICE: SCOPE OF REVIEW

While the Commission has discretion to review all underlying factual issues *de novo*, we are disinclined to do so where a Board has weighed arguments presented by experts and rendered reasonable, record-based factual findings. We generally step in only to correct “clearly erroneous” findings — that is, findings not even plausible in light of the record viewed in its entirety.

NATIONAL ENVIRONMENTAL POLICY ACT

NEPA requires only that we consider “reasonably foreseeable” indirect effects of the proposed licensing action.

REGULATIONS: INTERPRETATION (10 C.F.R. § 61.55(a)(6))

While a literal reading of 10 C.F.R. § 61.55(a)(6) would render depleted uranium a “Class A” waste (a category of low-level radioactive waste), the Part 61 rulemaking did not analyze the uranium enrichment waste stream. Therefore, the Commission in an earlier decision directed the NRC Staff, outside of this adjudication, to consider whether the quantities of depleted uranium at issue in the waste stream from uranium enrichment facilities warrant amending section 61.55(a)(6) or the section 61.55(a) waste classification tables.

CONTENTIONS: TIMELINESS

Our contention-pleading rules direct petitioners to file their NEPA contentions based on the applicant’s environmental report. If, later, the NRC Staff’s draft or final EIS contains data or conclusions that differ significantly from the data or conclusions in the applicant’s documents, then petitioners may file new or amended contentions.

MEMORANDUM AND ORDER

I. INTRODUCTION

In this decision, we consider a petition for review filed by Intervenors Nuclear Information and Resource Service and Public Citizen (NIRS/PC). They seek

Commission review of the Atomic Safety and Licensing Board (“Board”) decisions in LBP-06-8,¹ Second Partial Initial Decision (Environmental Impacts of Disposal of Depleted Uranium) and LBP-06-9² (Ruling on Summary Disposition Cross-Motions Relating to Remand from CLI-05-20). At issue is the adequacy of the NRC Staff’s analysis, under the National Environmental Policy Act (NEPA), of the impacts of disposing of depleted uranium associated with the proposed National Enrichment Facility.

The issue of depleted uranium disposal has generated a number of NRC adjudicatory decisions in this proceeding, including two Commission decisions.³ Because the Board’s decisions in LBP-06-8 and LBP-06-9 already outline in detail the procedural background associated with this waste disposal issue, we do not repeat that history here. The two Board decisions stem from an amended environmental impacts contention that the Commission remanded to the Board in CLI-05-20. The contention, titled NIRS/PC EC-4,⁴ challenged the NRC Staff’s environmental impacts analyses of near-surface and deep disposal of depleted uranium.⁵ The Board heard evidence on the contention at an evidentiary hearing held on October 24-27, 2005.

In LBP-06-8, the Board found that the Final Environmental Impact Statement (FEIS), as supplemented by the Board’s decision and the underlying adjudicatory record, provides an adequate analysis of the environmental impacts of near-surface disposal.⁶ On the same day, the Board also issued LBP-06-9, which focuses on the NIRS/PC challenge of the Staff’s deep disposal analysis.⁷ This second decision granted a Staff motion for summary disposition, and dismissed the part of the NIRS/PC contention that challenged the deep disposal impacts analysis. In these two decisions, the Board resolved the NIRS/PC contention in favor of the NRC Staff.

Both Louisiana Energy Services, L.P. (LES), and the NRC Staff support the decisions in LBP-06-8 and LBP-06-9. We have reviewed the decisions and the

¹ 63 NRC 241 (2006).

² 63 NRC 289 (2006).

³ See CLI-05-5, 61 NRC 22 (2005); CLI-05-20, 62 NRC 523 (2005).

⁴ The full text of the contention is set forth in LBP-06-8. See LBP-06-8, 63 NRC at 269-70.

⁵ “Near-surface” methods of disposal may involve disposal at depths down to approximately 30 meters (although burial at a depth greater than 30 meters may also be acceptable). See 10 C.F.R. § 61.7(a). More protective methods of radioactive waste disposal, which are often called “intermediate” land disposal methods, include deeper burial than near-surface disposal, a mined cavity, or special engineered barriers or disposal techniques. See, e.g., Final Rule: “Disposal of Radioactive Wastes,” 54 Fed. Reg. 22,578, 22,580-81 (May 25, 1989).

⁶ See LBP-06-8, 63 NRC at 286-87.

⁷ See LBP-06-9, 63 NRC at 307-12. This decision also denied a NIRS/PC motion for partial summary disposition. NIRS/PC had requested a finding declaring the FEIS analysis of deep disposal impacts inadequate.

underlying record, and see no basis for disturbing the Board's result. We do not find the Board's factual findings "clearly erroneous" or its legal conclusions "contrary to law."⁸ We are concerned, though, that the Board (and the underlying FEIS) may not have fully explored potential long-term effects from disposing of depleted uranium — whose radiological hazard gradually *increases* over time. Hence, we grant review,⁹ offer additional observations on the disposal question, and affirm the Board decisions as supplemented by our decision today.

II. ANALYSIS

A. Near-Surface Disposal

1. *Background and Record Evidence*

This is a proceeding to license a uranium enrichment facility, *not* a proceeding to license a near-surface waste disposal facility. NIRS/PC raise many arguments attacking the suitability of the Envirocare site for near-surface disposal of LES's depleted uranium. But in no respect will this proceeding authorize LES to dispose of depleted uranium at Envirocare or any particular disposal facility, or by any particular method. In this decision, we examine a NEPA analysis of *estimated* depleted uranium disposal impacts. Whether LES appropriately may dispose of its depleted uranium at a specific near-surface facility will depend on whether the 10 C.F.R. Part 61 performance objectives governing near-surface disposal (or comparable state regulations) can be met at that facility. Our decision today is not a Part 61 compliance review and it would be inappropriate for us to undertake one at this time.

We examine the potential impacts of depleted uranium disposal in this proceeding because under NEPA standards and our environmental regulations it is appropriate to consider the reasonably foreseeable environmental impacts of a proposed action, even if they are only indirect effects.¹⁰ Depleted uranium disposal from the proposed National Enrichment Facility would be an indirect effect, removed in time and location from the proposed enrichment activities.

In addition, as we stated earlier in this proceeding, an NRC environmental impacts analysis of depleted uranium disposal impacts "does not require a full-scale site-specific review, an inquiry in the purview of the responsible licensing agency."¹¹ The NRC does not regulate any of the five near-surface waste disposal facilities identified in the FEIS as potential locations for disposal of the LES

⁸ See 10 C.F.R. § 2.341(b)(4)(i), (ii).

⁹ See 10 C.F.R. § 2.341(b)(4)(iii), (v).

¹⁰ See 10 C.F.R. Part 51, Subpart A, Appendix A, at (7)(b).

¹¹ CLI-05-20, 62 NRC at 536.

depleted uranium.¹² These potential disposal sites are either regulated by state authorities under the NRC's Agreement State program,¹³ or by the Department of Energy. If LES ultimately chooses one of these waste disposal facilities, it will fall within the purview of one of these authorities — not the NRC — to approve and regulate the disposal. We would expect the appropriate regulatory authority to conduct any site-specific evaluations necessary to confirm that radiological dose limits and standards can be met at the disposal facility, in light of the quantities of depleted uranium envisioned. In short, our NEPA analysis today considers estimated disposal impacts, but does not purport to assess whether all regulatory requirements would be satisfied at any particular site.

The NRC Staff's FEIS for the National Enrichment Facility examined the potential environmental impacts of disposing of the LES depleted uranium at the Envirocare near-surface disposal facility in Utah. The Staff concluded that impacts would be small, given the specific characteristics of the site. In LBP-06-8, the Board found the Staff's conclusion reasonable. While the Board noted that the "FEIS as written does not provide an expansive explanation [of near-surface disposal impacts.] . . . when combined with the full record before the Board . . . the aggregate is sufficient to satisfy the agency's obligation under NEPA."¹⁴ The Board supplemented the FEIS disposal impacts analysis with its decision and the underlying adjudicatory record.¹⁵

Our look at the adequacy of the near-surface disposal analysis starts with a point on which all parties agree: not all near-surface disposal facilities may be suitable for disposal of large quantities of depleted uranium. It has been and continues to be the Staff's position that "some near-surface disposal facilities may

¹² These include the licensed commercial low-level waste disposal facilities at Envirocare, Hanford, and Barnwell, located in the states of Utah, Washington, and South Carolina, respectively. It also includes the Waste Control Specialists (WCS) facility in Texas, which has applied for but currently does not have authorization from the state of Texas to dispose of low-level radioactive waste. Another potential disposal location is the Nevada Test Site, a Department of Energy disposal site that can receive "low-level radioactive wastes generated by the proposed [National Enrichment Facility] only if ownership of these wastes is first transferred to the DOE." See NUREG-1790, "Environmental Impact Statement for the Proposed National Enrichment Facility in Lea County, New Mexico," Final Report, Vol. 1 (June 2005) (FEIS), at 2-32.

¹³ Section 274 of the Atomic Energy Act authorizes the Commission to "enter into agreements with the Governor of any State" in which the NRC relinquishes certain regulatory authority over particular radioactive materials, and the disposal of such materials, to the state. See 42 U.S.C. § 2021(b). The state must provide a regulatory regime that is equivalent to or more stringent than the NRC regulations in Part 61. See 42 U.S.C. §§ 2021(d)(1), (o)(2).

¹⁴ LBP-06-8, 63 NRC at 286.

¹⁵ *Id.* at 287.

not be suitable for large quantities of depleted uranium from uranium enrichment operations”¹⁶ because established radiological standards could be exceeded.

For example, an FEIS prepared years ago for the proposed Claiborne Enrichment Center uranium enrichment facility found near-surface disposal unacceptable. Because the proposed Claiborne facility was to be located in Louisiana, the environmental analysis considered a generic reference site with environmental characteristics typical of the humid southeastern United States. Given the water infiltration rate and aquifer flow rate expected at such a humid southeastern site, the Claiborne analysis estimated that offsite releases of radioactive material would occur, and that radiological doses to the general public (from drinking well water and consuming crops irrigated with water drawn from the well) would exceed the limits specified in 10 C.F.R. Part 61.¹⁷

Disposal at a so-called “wet” site, typical of the humid southeastern United States, can result in disposal impacts significantly different from those at a “dry” site, typical of a site in the arid western United States. This is because the “release of uranium isotopes and their [decay products] from [a] disposal facility is limited by their solubility in water.”¹⁸ Consideration therefore should be given to whether site-specific features will minimize the waste’s contact with water, limiting the potential for radionuclides to migrate away from the site. A site that is very “dry,” with a low rate of precipitation and high rate of evapotranspiration, will be more protective against migration of radionuclides from the site than a location with humid environmental conditions.

This distinction between the radiological impacts expected from “wet” and “dry” sites is reflected in the Department of Energy’s Programmatic Environmental Impact Statement (PEIS) on the long-term management of depleted uranium hexafluoride. The PEIS estimated radiological doses from disposal of large quantities of depleted uranium at two representative generic sites, one with “wet” environmental characteristics and the other with “dry” characteristics. The analysis evaluated the potential impacts that might occur at approximately 1100 years following closure of the disposal site.¹⁹ The PEIS additionally states that assumptions (e.g., water infiltration rates, soil characteristics, depth to the

¹⁶ See October Hearing Transcript (Proprietary) (“Transcript”) at 2836; *see also id.* at 2920-25; 2929-44; 2953-54.

¹⁷ See NUREG-1484, “Final Environmental Impact Statement for the Construction and Operation of Claiborne Enrichment Center, Homer, Louisiana,” Vol. 1 (August 1994) (Staff Exh. 46) (“Claiborne FEIS”), at A-9, 4-67.

¹⁸ See Claiborne FEIS at 4-66.

¹⁹ See Final Programmatic Environmental Impacts Statement for Alternative Strategies for the Long-term Management and Use of Depleted Uranium Hexafluoride (April 1999) (LES Exh. 18) (“DOE PEIS”), Appendix I at I-69.

water table, locations of human receptors) were chosen to “produce conservative estimates of impact . . . tend[ing] to overestimate the expected impact.”²⁰

Like the Claiborne FEIS, the Department of Energy’s analysis concludes that near-surface disposal of depleted uranium at a “wet” site could lead to offsite radiological exposures that exceed the Part 61 dose limits for the general public.²¹ For the “dry” disposal setting, the PEIS found that “essentially no impacts [to the public] would be expected . . . for more than 1,000 years because of the low water infiltration rate and greater depth to the water table.”²² Estimated radiological doses at the “dry” site during this time frame were 0 (zero).²³ At the evidentiary hearing in our case, LES counsel additionally pointed out the PEIS’s statement that in a “dry” setting it indeed likely would take longer than 10,000 years for uranium and its decay products to reach groundwater.²⁴

LES has not yet made a definitive decision on where it wants to send its depleted uranium, but its current preference is a private near-surface disposal facility. In evaluating potential near-surface disposal impacts, the Staff chose to examine the Envirocare facility as a “reference” site, which a Staff expert describes as a “site where it would be possible . . . to safely dispose of the depleted uranium, where the environmental impacts would be small.”²⁵ Given that a detailed site-specific review of potential disposal impacts will not be completed “until a particular disposal site is determined,” and further that the environmental impacts of disposal are only a “secondary or indirect environmental consequence of constructing and operating the [National Enrichment Facility],” the Board found it reasonable that the Staff chose to focus on one site — in this case Envirocare — as a “reference” site for evaluating near-surface disposal impacts.²⁶ As the Board described, Envirocare is already licensed, its license has no current inventory limits on uranium, and it has no regional waste “compact-related restriction that could affect the receipt of any [National Enrichment Facility] waste.”²⁷

When, as part of its NEPA review, the NRC Staff considered the feasibility of using Envirocare as a reference site for analyzing disposal of the LES depleted uranium, the Staff contacted the Utah Division of Radiation Control, which is responsible for regulating low-level radioactive waste disposal in Utah. In a telephone conference call with the NRC Staff, the Division of Radiation Control

²⁰ *Id.* at I-69 to I-70.

²¹ *Id.* at I-72.

²² *Id.* at I-19.

²³ *Id.* at I-71.

²⁴ Transcript at 2646 (referencing DOE PEIS, Appendix I at I-72); *see also* Environmental Impact Statement for the Proposed American Centrifuge Plant, Final Report (April 2006), at 4-77 to 4-78.

²⁵ Transcript at 2866.

²⁶ LBP-06-8, 63 NRC at 285.

²⁷ *Id.*

stated that the Envirocare site has several site-specific features which make it suitable for disposal of large quantities of depleted uranium.²⁸ The Board ultimately agreed,²⁹ and much in the record supports its finding.

For example, at the hearing, NRC Staff and LES experts explained that the Envirocare site's low precipitation (5 to 6 inches per year), high evapotranspiration rate (approximately 40 to 50 inches per year), high groundwater salinity (total dissolved solids approximately 30,000 to 80,000 milligrams per liter) and consequent high soil salinity render the site acceptable for near-surface disposal of depleted uranium.³⁰ More specifically, LES's expert described that the combination of low precipitation and high evapotranspiration at Envirocare meant that "very little water and . . . very little dissolved uranium would be transported from the [waste disposal] cell and that transport to any groundwater would take a very long period of time."³¹ He stated that even over a period of 1000 years, "radionuclides would not be transported to groundwater at all," and that groundwater-related impacts at Envirocare, or sites like it, would be "non-existent."³²

Moreover, he stressed that "the groundwater . . . is not usable in any case [because of its high salinity]."³³ Staff and LES experts explained that the highly saline water at Envirocare precludes use for drinking or irrigation, and the saline soil is unsuitable for growing crops.³⁴ For these reasons, the Utah Division of Radiation Control concluded that it was unrealistic to assume that there will be people residing or farming on the disposal site after site closure, and thus unrealistic to assume residential or agricultural "intruders."³⁵ Given the lack of potable water and other conditions at the Envirocare site, both the Staff and LES

²⁸ See Memorandum to Scott Flanders, NRC, from Matthew Blevins, NRC (Apr. 6, 2005) (LES Exh. 104) ("April 6, 2005 Memo").

²⁹ See, e.g., LBP-06-8, 63 NRC at 284.

³⁰ See, e.g., Transcript at 2627-31, 2837, 2874-75, 2884-87, 2904-05. In their petition for review, NIRS/PC argue that the Division of Radiation Control did not specify how many groundwater measurements were taken or the sampling methodology. But the NRC Staff had no reason to look behind and question site-specific environmental data provided by the state regulatory authority. Moreover, NIRS/PC nowhere provide any reason to doubt these figures. As LES argues, NIRS/PC themselves could have sought to obtain publicly available data on the geologic or hydrologic characteristics of the Envirocare site.

³¹ Transcript at 2630.

³² *Id.* at 2631.

³³ See *id.* at 2630.

³⁴ See *id.* at 2837, 2874, 2876, 3068-70.

³⁵ See April 6, 2005 Memo. An inadvertent "intruder" is someone who might occupy a waste disposal site after site closure and engage in activities such as agriculture, dwelling, or construction, in which the person may unknowingly come into contact with the waste. See 10 C.F.R. § 61.2. The expression "residential intruder" refers to someone who might have a residence at the site, drill a well, and use the site groundwater for drinking. An "agricultural intruder" refers to someone who might live at a house on the disposal site and consume food grown on the site's soil.

experts agree it is reasonable to assume there will not be radiological exposures involving residents or farmers drinking contaminated water obtained from the site and eating foods irrigated by the site's water and grown in the site's soil.³⁶ The Staff's analysis of Envirocare in the FEIS "drop[s] the intruder [exposure] pathways because they were unrealistic [given] the unique site characteristics."³⁷

At the hearing, NIRS/PC's expert, Dr. Arjun Makhijani, agreed that for "dry" sites like Envirocare there likely would be no water-related radiological exposures to the general public, at least for 1000 years.³⁸ As for intruders, he also "would not assume that the groundwater at this site would be used by people who are there."³⁹ For Envirocare, therefore, he stated that "it may be reasonable to exclude the groundwater [radiological exposure] pathway, and [he] would agree with that."⁴⁰

Dr. Makhijani's greater concern was what he called the "erosion pathways,"⁴¹ direct radiological doses to potential intruders if the disposal unit cover has eroded away. Because of the ingrowth of radium from decay of uranium, the radiological hazard of the depleted uranium waste will not decline but will grow very slowly over tens of thousands of years. If erosion wears away the disposal site cover (and there has been no remediation of the cover), an intruder coming onto the site could receive direct external and dust inhalation doses from the uncovered waste. These exposure pathways would not depend upon water consumption or use.

Dr. Makhijani agreed, however, that short of someone actually digging into a disposal unit's cover (to construct a house, for instance), his concern about intruders relates to "when you get out many thousands of years."⁴² As Dr. Makhijani explained, the issue of the ingrowth of radium decay products — and therefore the potential for higher doses — "develops over a period of time."⁴³ At the hearing Dr. Makhijani discussed two reports (prepared by himself and Dr. Brice Smith) that contain screening calculations estimating radiological doses to intruders "far into the future."⁴⁴

LES's expert reviewed these intruder dose estimates but found them unrealistic for a site like Envirocare. He noted, first, that in one report the higher dose predictions were based on exposure scenarios that included intruders drinking contaminated water or consuming plants grown on the site — scenarios he found highly unlikely at Envirocare for the foreseeable future, given the high

³⁶ See, e.g., Transcript at 2876, 2884-85, 2887, 3068-70.

³⁷ See *id.* at 2887; see also *id.* at 2876, 2884-85.

³⁸ See *id.* at 2984-86, 2999; see also *id.* at 3008.

³⁹ *Id.* at 3002.

⁴⁰ See *id.* at 2999.

⁴¹ *Id.*

⁴² See *id.* at 2985, 2988.

⁴³ See *id.* at 2985-86.

⁴⁴ See *id.* at 2984-85.

salinity of the soil and water.⁴⁵ He additionally found unrealistic the second report's assumption that an inadvertent intruder would receive a full year of onsite radiological exposures, when "we are talking about a site that is practically uninhabitable, and sites like it."⁴⁶

He did not discount the possibility that intruders might spend relatively short periods of time at the site, engaging in recreational activities (e.g., hunting, dune buggy riding, or camping). But in his view, these short-term activities likely would not result in unacceptable intruder doses. He therefore suggested that sites like Envirocare "could be licensed under 10 C.F.R. Part 61 regardless of the time frame you looked at."⁴⁷

The Staff's expert similarly concludes it is "unlikely that [the Envirocare] area would result in serious exposures because of the unlikely nature of someone being there for long periods of time."⁴⁸ The physical environment "make[s] the site unsuitable for an intruder even coming on and building a residence," he stated.⁴⁹ Thus, both the Staff and LES experts agree that significant intruder exposures at a site like Envirocare are unrealistic.⁵⁰ Under questioning from the Board, the

⁴⁵ See *id.* at 3068-70.

⁴⁶ *Id.* at 3072.

⁴⁷ *Id.* at 3073. LES's expert also correctly pointed out that NIRS/PC erroneously apply the 10 C.F.R. § 61.41 dose limits for releases of radioactivity to members of the general public (e.g., 25 millirems per year) to inadvertent intruders. See *id.* at 3078. Part 61 does not specify a dose limit for protection of inadvertent intruders. See 10 C.F.R. § 61.42. But it is clear from the Part 61 rulemaking that the 25-millirem per year limit was not considered appropriate for intruders because inadvertent intrusion is often of a "short-term temporary nature," and "would only be expected to involve local exposure of a few individuals." See Draft Environmental Impact Statement on 10 C.F.R. Part 61, NUREG-0782, "Licensing Requirements for Land Disposal of Radioactive Waste," Vol. II (Sept. 1981), at 4-55 to 4-56.

⁴⁸ Transcript at 2906.

⁴⁹ *Id.* at 2910-11.

⁵⁰ At one point, Envirocare's license contained a concentration limit on uranium isotopes, but the current license allows disposal of depleted uranium with no volume restrictions. The original radionuclide concentration limit was based upon a site-specific performance assessment that assumed potential intruder exposures. See Evaluation of the Potential Public Health Impacts Associated with Radioactive Waste Disposal at a Site Near Clive, Utah, by R.D. Baird et al. (June 1990) ("Baird Report"). While this report conservatively assumed potential intruder exposures and therefore recommended particular radionuclide concentration limits, it also repeatedly stated that it would be "very unlikely that anyone would choose to live near or engage in agriculture" at the site. See, e.g., *id.* at ES-4. The Staff explained in this proceeding that Utah granted Envirocare a license amendment eliminating the uranium concentration limits after concluding that the intruder scenarios assumed in the Baird Report were unrealistic and therefore unnecessarily conservative. See, e.g., Transcript at 2887, 2894-97, 2905-06, 2910.

A challenge to the Envirocare license amendment is not a matter within the scope of this licensing proceeding given that Utah issued this amendment pursuant to its authority as an NRC Agreement

(Continued)

Staff's expert also said it is likely that the groundwater at the Envirocare site has had high salinity for thousands of years, and that because the area is in the rain shadow of the Sierra Mountains, he would expect the climate to remain the same for the foreseeable future, short of geological changes.⁵¹

2. *Review of Board Decision*

In LBP-06-8, the Board reviewed all the expert testimony and exhibits and found that “there is now sufficient evidence in the record . . . to conclude that the Staff indeed took a hard look at the impacts of near-surface disposal at Envirocare.”⁵² The Board found that “the intruder scenarios are so unlikely based on the specific characteristics of the Envirocare site as to fall outside of what can reasonably be called anticipated or not unduly speculative impacts.”⁵³ It went on to note that “for . . . residential or agricultural uses to be practicable in the future, material socioeconomic changes and/or improvements in technology would have to occur,” and that “[b]ecause such material technological and socioeconomic changes are not predictable with any confidence, any projections about the likelihood of an intruder scenario would be exceedingly speculative.”⁵⁴ The Board “expressly declined to go down the path of making speculative projections about the distant future.”⁵⁵

While the Commission has discretion to review all underlying factual issues *de novo*, we are disinclined to do so where a Board has weighed arguments presented by experts and rendered reasonable, record-based factual findings.⁵⁶ We generally step in only to correct “clearly erroneous” findings — that is, findings “not even plausible in light of the record viewed in its entirety.”⁵⁷ That decidedly is not the case here, where ample record evidence, including expert opinion, supports the Board’s findings. As is customary, the Board itself included two judges with technical expertise. We therefore defer to the Board’s factual findings. As the

State. As an Agreement State, Utah’s low-level radioactive waste regulations must be compatible with the NRC’s regulations in 10 C.F.R. Part 61, and the NRC periodically reviews Agreement State programs to ensure they remain compatible with our health and safety performance objectives.

⁵¹ Transcript at 2905.

⁵² LBP-06-8, 63 NRC at 282; *see also id.* at 282-83.

⁵³ *Id.* at 284.

⁵⁴ *Id.* at 284 n.37.

⁵⁵ *Id.*

⁵⁶ *See, e.g., Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-1, 63 NRC 1, 2 (2006).

⁵⁷ *Anderson v. Bessemer City*, 470 U.S. 564, 573-76 (1985). *Accord Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-26 (2003).

Board held, near-surface disposal, in at least at one location (Envirocare), appears at this time to be a plausible option for the LES depleted uranium.

NIRS/PC would have preferred a more conservative NEPA analysis of the Envirocare site, one that attempts to predict or simply assumes geologic, economic, societal, technological, and climate changes that might occur over thousands or even tens of thousands of years and could affect environmental impacts. But NEPA requires only that we consider “reasonably foreseeable” indirect effects of the proposed licensing action. If, as here, extensive speculation is required to find significant long-term adverse impacts at Envirocare, by the same token one could assume — perhaps even more readily — that technological improvements over upcoming centuries (or millenia) will provide more erosion-resistant disposal unit covers, or will otherwise alleviate concerns about the impacts of depleted uranium disposal. The Board’s reluctance to assume or speculate about far-reaching and large-scale changes was not unreasonable.

3. Issues Related to Long-Term Impacts of Disposal

The Board and the NRC Staff’s FEIS examined the potential disposal impacts at one “reference” near-surface disposal site only — Envirocare. Disposal impacts at one or more of the other identified potential near-surface facilities (e.g., Hanford, Waste Control Specialists, Nevada Test Site, or another site) may be greater, and accordingly one or more of those facilities may not be suitable for disposal of the National Enrichment Facility waste. Conversely, the impacts at one or more other sites may be less, making those sites suitable options for disposal. Both our decision today and the underlying record outline key considerations associated with disposal of large quantities of depleted uranium.

As we have noted, environmental site conditions (e.g., the water infiltration rate, depth to the underlying groundwater table, and soil characteristics) must adequately limit the potential for radionuclides to migrate away from the site. In addition, site conditions and facility design are relevant to reasonable assurance of protection against significant exposure of inadvertent intruders — a potential long-term concern given the ingrowth of decay products. Considerations may include whether a site has potable water, the site’s rate of erosion, and how deep the waste is buried. Long-term assessments of site performance, however, inherently involve significant uncertainty.

These are factors to be considered by the appropriate state or federal regulatory authority once LES selects a disposal site, and an ultimate disposal determination needs to be made. NIRS/PC inappropriately seek to transform *this* proceeding — for a uranium enrichment facility — into the equivalent of a final disposal authorization review for one or more specific near-surface disposal facilities. But as we have stressed, this proceeding will not determine where the LES depleted uranium will go. That must await future decisions by LES and by pertinent

licensing authorities, as well as future opportunities to revisit and examine in greater detail near-surface disposal impacts.

Earlier this year, we noted that while a literal reading of 10 C.F.R. § 61.55(a)(6) would render depleted uranium “Class A” waste (a category of low-level radioactive waste), the Part 61 rulemaking did not analyze the uranium enrichment waste stream. We therefore directed the NRC Staff, outside of this adjudication, “to consider whether the quantities of depleted uranium at issue in the waste stream from uranium enrichment facilities warrant amending section 61.55(a)(6) or the section 61.55(a) waste classification tables.”⁵⁸ The outcome of the Staff’s review may also need to be considered by the appropriate regulatory authority at some point in the future.

And as we have already said, no decision has been made about where the LES depleted uranium ultimately will go. Prior to a final determination on disposal, we would expect that the pertinent regulatory authority will have considered both the characteristics of the waste and the site-specific features of the disposal site to assure that all radiological dose limits and safety regulations indeed can be met.⁵⁹ We have no reason to think that state authorities will not act responsibly and take all measures necessary to protect the public health and safety. Additionally, under the Atomic Energy Act, the NRC in its oversight role periodically reviews state radiation control programs to confirm that they remain compatible with

⁵⁸ CLI-05-20, 62 NRC at 536.

⁵⁹ NIRS/PC raise site-specific concerns about potential depleted uranium disposal at the Waste Control Specialists facility, located in Andrews County, Texas. LES has entered into a Memorandum of Understanding with Waste Control Specialists to explore the possibility of disposing of its depleted uranium at the Waste Control Specialists’ site. Waste Control Specialists’ current license, issued by the State of Texas Bureau of Radiation Control, does not authorize disposal of radioactive material, but Waste Control Specialists has applied for authorization to dispose of Class A, B, and C low-level radioactive waste. *See* FEIS at 2-32. To dispose of the LES depleted uranium, Waste Control Specialists would first need to obtain “[a]pproval by the State of Texas of WCS’s [waste disposal] application, including authorization by the State for the WCS . . . facility to accept for disposal depleted uranium oxides of the type and quantities expected to be generated as a result of the proposed [National Enrichment Facility’s] operations.” *Id.* at 2-33. NIRS/PC can directly raise with Texas their concerns about the pending Waste Control Specialists application. It is the job of the Agreement State regulatory body to independently evaluate a license application, and ensure that there is adequate technical data and analyses demonstrating that a proposed disposal facility meets all radiological safety requirements. We will not assume irregularities in the review of the Waste Control Specialists’ disposal application.

NIRS/PC also raise concerns about nonradiological hazards associated with depleted uranium, including uranium’s chemical toxicity. These arguments are untimely, as we earlier ruled. *See* CLI-05-20, 62 NRC at 531 n.38. In any event, we assume that applicable regulatory limits on uranium in drinking water will be enforced. The potential for chemical contamination of groundwater from depleted uranium disposal will largely be a function of how arid or “wet” the site is (whether contaminants can spread) and whether the water is potable, factors that will need to be considered by the regulatory authority for disposal when a site is ultimately selected.

the Commission's programs and adequately protect public health and safety. The NRC retains authority to suspend or terminate agreements relinquishing regulatory authority to states.⁶⁰

The FEIS, as amplified by the Board's decision and our decision today, provides adequate consideration of the reasonably foreseeable potential environmental impacts of near-surface disposal. Our decision today finds that at least one near-surface disposal facility, Envirocare, may be a plausible option for disposal of the National Enrichment Facility depleted uranium, where potential estimated impacts appear to be small. If LES ultimately selects another disposal site, or if upon further review it is determined that Envirocare is not a suitable facility, other near-surface disposal sites will need to be evaluated by the appropriate regulatory authority for disposal, consistent with the Part 61 performance objectives. If no near-surface disposal is ultimately selected and approved, another kind of disposal facility — such as a deep disposal facility — would need to be considered and developed. We turn now to the NEPA aspects of that option.

B. Deep Disposal Analysis

In LBP-06-9, the Board granted a Staff motion for summary disposition, and thereby dismissed the portion of the remanded NIRS/PC disposal impacts contention that challenged the NRC Staff's deep disposal analysis. The decision also denied a NIRS/PC motion for partial summary disposition. NIRS/PC's motion had sought a Board ruling finding the Staff's deep disposal analysis inadequate and ordering the Staff to prepare a new deep disposal analysis.

We agree with the Board's conclusion that the only deep disposal questions that NIRS/PC raised in timely fashion have been resolved by the NRC Staff, and are now moot.⁶¹ As the Board found, NIRS/PC impermissibly seek to expand the scope of their disposal impacts contention by adding claims that could and should have been raised much earlier in this proceeding.⁶² Moreover, NIRS/PC apparently seek a level of precision and definitiveness in the deep disposal analysis that is simply unattainable at this stage, when it is (1) unclear (if not unlikely) that deep disposal will ever be required for the LES depleted uranium, and (2) unknown where such a facility would be and what its specific design and site-specific features would be. A deep disposal facility for depleted uranium would require a full detailed safety analysis and licensing review at the time such proposal is proposed. We address these issues in turn below.

⁶⁰ See 42 U.S.C. § 2021(j).

⁶¹ See LBP-06-9, 63 NRC at 307-09.

⁶² See *id.* at 309, 310, 312 n.12.

1. *Timeliness*

Our contention-pleading rules direct petitioners to file their NEPA contentions “based on the applicant’s environmental report.”⁶³ If, later, the NRC Staff’s draft or final EIS contains data or conclusions “that *differ significantly* from the data or conclusions in the applicant’s documents,” then petitioners may file new or amended contentions.⁶⁴

Here, LES’s Environmental Report contained a specific section on the “Potential Impacts of Each [depleted uranium] Disposal Option.”⁶⁵ The disposal impacts analysis relied upon and described a deep disposal analysis that had been prepared for and used in the earlier *Claiborne* uranium enrichment proceeding. The Environmental Report noted that the *Claiborne* analysis had studied the potential consequences of disposing of depleted U_3O_8 in “two representative deep disposal sites,” had evaluated the “intake of radionuclides from drinking water, irrigated crops, and fish,” and had further evaluated both an undisturbed performance scenario where “groundwater would be discharged to a river,” and a deep well water use exposure scenario where “an individual would obtain groundwater by drilling a well down gradient from the disposal unit.”⁶⁶

LES’s Environmental Report noted that the *Claiborne* analysis provided “an estimation of potential doses.”⁶⁷ It described some of the assumptions of the analysis, and the *Claiborne* analysis’s conclusion that the “[t]he estimated impacts for a deep disposal facility were less than the 0.25 mSv/yr (25 mrem/yr) level adopted from 10 C.F.R. 61 . . . as a basis for comparison.”⁶⁸ The Environmental Report identified the section of the *Claiborne* EIS that discusses depleted uranium disposal impacts. That section contains estimated maximum doses for the two generic deep disposal sites studied, broken down by radiological exposure pathways.⁶⁹

NIRS/PC’s contentions challenging the LES Environmental Report did not challenge the Environmental Report’s conclusion that deep disposal impacts can meet Part 61 standards and would be less than 25 millirems per year. NIRS/PC did not request any more information or data from the Environmental Report’s deep disposal analysis, or from the referenced *Claiborne* analysis. They did not challenge any assumption or dose result of the *Claiborne* analysis, and notably, as the Board stated, their expert is “apparently intimately familiar with the

⁶³ 10 C.F.R. § 2.309(f).

⁶⁴ *Id.* (emphasis added).

⁶⁵ See National Enrichment Facility Environmental Report (Dec. 2003) at 4.13-12 to 4.13-14.

⁶⁶ See *id.* at 4.13-14.

⁶⁷ See *id.* at 4.13-13.

⁶⁸ *Id.* at 4.13-14.

⁶⁹ See *Claiborne* EIS at 4-67.

[Claiborne] FEIS and its underlying scientific basis’’ because he was the expert witness for another party in the earlier *Claiborne* proceeding.⁷⁰ In short, NIRS/PC raised no question about any of the information or the radiological impacts conclusion set forth in the Environmental Report’s deep disposal analysis, and no question about the referenced Claiborne analysis. If NIRS/PC believed there is some inherent difficulty in meeting the Part 61 dose limits by deep disposal, it was incumbent upon them to challenge the Environmental Report’s discussion. They did not.

Later, the Staff’s Draft Environmental Impact Statement (DEIS) for the National Enrichment Facility also referenced and relied upon the Claiborne analysis. But because the National Enrichment Facility is expected to generate a greater amount of depleted uranium than the earlier proposed Claiborne facility, the Staff multiplied the Claiborne dose estimates (for the different exposure pathways) by 1.72 times. The DEIS indicated that the deep disposal dose estimates had been adapted to be “proportional to the quantity of material postulated from the Claiborne Enrichment Center enrichment facility,” but did not specify precisely how the Claiborne dose results had been multiplied or applied in the National Enrichment Facility DEIS.⁷¹

After the DEIS was issued, NIRS/PC filed a motion to amend and supplement several of their contentions. Among their claims, NIRS/PC argued that the DEIS deep disposal analysis “fail[ed] to disclose the models used or the parameter values,” and that while “[t]he text suggests that models used in analyzing the [Claiborne] site were used . . . the results are unlike any reported in connection with the CEC facility.”⁷² The Board allowed NIRS/PC to amend some of their contentions, but for the disposal impacts claims the Board ruled that NIRS/PC could renew their motion after the Commission issued a then-pending decision on whether depleted uranium is a low-level radioactive waste.⁷³

After the Commission issued its decision on the status of depleted uranium as a low-level radioactive waste, NIRS/PC again filed a motion to amend and supplement their contentions. But instead of simply refiling their earlier motion, they submitted a new motion containing many distinct new claims, most of which

⁷⁰ See LBP-06-9, 63 NRC at 310-11.

⁷¹ NUREG-1790, “Environmental Impact Statement for the Proposed National Enrichment Facility in Lea County, New Mexico,” Draft Report for Comment (Sept. 2004) (“DEIS”) at 4-59.

⁷² See Motion on Behalf of Petitioners NIRS/PC To Amend and Supplement Contentions (Oct. 20, 2004) at 16.

⁷³ See Memorandum and Order (Ruling on Late-Filed Contentions) (Nov. 22, 2004) (unpublished) at 15.

were untimely.⁷⁴ In one of the bases challenging the DEIS deep disposal impacts analysis, however, NIRS/PC repeated their claim that the “estimates [in the DEIS] are said to be based on those in the [Claiborne analysis],” but that the assumptions used were unclear and the dose estimate “totals are different from those in the [Claiborne] analysis by nearly a factor of 2.”⁷⁵ NIRS/PC stated that this “difference may be partly explained by the [National Enrichment Facility’s] generation of roughly twice the amount of [depleted uranium] of the [Claiborne] proposal,” but that the estimate for one kind of drinking water dose was “almost 54,000 times lower in the current DEIS than in the [Claiborne] FEIS,” and “[t]his discrepancy remains unexplained.”⁷⁶

This claim of a “discrepancy” between the DEIS estimated radiological doses from deep disposal and the Claiborne analysis dose estimates — on which the DEIS analysis is based — is what we found to be timely and remanded to the Board.⁷⁷ In fact, we stressed that the deep disposal impacts issue appeared amenable to summary disposition because the Staff in the FEIS had (1) clarified that the same models and assumptions set forth in the Claiborne analysis applied, and (2) “corrected the DEIS dose discrepancy highlighted by NIRS/PC.”⁷⁸

We also said that “[i]f NIRS/PC actually mean to challenge the [underlying] dose estimates used in the *Claiborne* proceeding, such a challenge appears untimely, given that the LES Environmental Report said that it was relying on the Claiborne dose estimates.”⁷⁹ We highlighted timeliness because it appeared that NIRS/PC were seeking to greatly expand their deep disposal analysis challenge into a host of issues that could have been raised much earlier, at the time LES submitted its Environmental Report.

In LBP-06-9, the Board found that the “discrepancy” between the Claiborne and National Enrichment Facility dose figures had been corrected.⁸⁰ The discrepancy stemmed from a typographical error and an exponent transposition error. NIRS/PC have offered no additional challenges directly related to the correction

⁷⁴ See CLI-05-20, 62 NRC at 531 n.38 (“[i]ndeed, the majority of the bases they submitted ventured into completely different issues that could have been raised previously”); see also *id.* at 530, 532. One of these late claims alleged a need to analyze the alternative of converting DUF₆ to the DUO₂ form, an alternative rejected in the DEIS. See CLI-05-28, 62 NRC 721, 726-28 (2005).

⁷⁵ See Motion on Behalf of Intervenors NIRS/PC for Admission of Late-Filed Contentions (Feb. 2, 2005) (Proprietary) at 17.

⁷⁶ *Id.*

⁷⁷ See CLI-05-20, 62 NRC at 528, 530-31, 533 n.48.

⁷⁸ See *id.* at 533 n.48.

⁷⁹ *Id.* We noted further that it appeared that NIRS/PC sought to challenge the deep disposal analysis because it was based upon two representative disposal sites, a claim that “seemingly also could have been based upon the Environmental Report.” See *id.*

⁸⁰ LBP-06-9, 63 NRC at 307-09.

of the National Enrichment Facility dose figures.⁸¹ But they wish to litigate a number of the Claiborne analysis's assumptions and conclusions. They argue, for instance, that in the Claiborne analysis the well water doses for the representative granite disposal site "are incredibly low," and that the river scenario doses at the granite site "are so low as to be unbelievable."⁸² They dispute particular assumptions made in the Claiborne analysis, and seek additional underlying information about the analysis. All of these claims could and should have been raised based upon LES's Environmental Report.⁸³ It is too late now.

NIRS/PC's new claims do not challenge any significantly *different* data or conclusions described in the National Enrichment Facility environmental impacts analyses. They challenge specific information set forth in the Claiborne analysis — assumptions, factors, and dose estimates described in the Claiborne FEIS. These new challenges surfaced only in the NIRS/PC motion of February 2005, almost a year after NIRS/PC filed their petition to intervene. The Board properly rejected these very late efforts to expand the scope of this proceeding.

In any event, based on our review of the record, NIRS/PC have not presented sufficient reason to revisit the Claiborne analysis in this proceeding. They argue, for example, that no explanation has been offered for why the Claiborne analysis assumed UO_2 as the dominant precipitate or solid phase of the waste when the analysis assumes U_3O_8 as the disposal form. But as both the Staff and LES explained, in "reducing" (low-oxygen) conditions prevalent in groundwater deep under the ground, U_3O_8 (which is unstable in groundwater) would be expected to

⁸¹ At the hearing, the Board indicated that once the dose estimate errors — the discrepancy — were corrected, NIRS/PC would be able to raise claims if they stemmed from the "corrected error." See Transcript at 2844-46. Thus, the Board would have allowed NIRS/PC to contest whether the discrepancy had been resolved, or to raise a new claim if the corrected dose figures had a particular new "significance" for the deep disposal impacts conclusions. See LBP-06-9, 63 NRC at 308-09.

⁸² See Petition on Behalf of NIRS/PC for Review of Second Partial Initial Decision on Environmental Contentions (Mar. 20, 2006) ("Petition") at 13.

⁸³ NIRS/PC also stress that the NRC Staff has not been able to provide detailed input data used in the Claiborne analysis and therefore the analysis "cannot be reproduced" and is "unscientific." See Petition at 20. A Staff expert has stated that the Claiborne analysis cannot be duplicated because the Staff lacks "detailed input data" and because "some of the codes used in the assessment ha[ve] been modified or updated." See Affidavit of Dr. Rateb Abu-Eid at 3, Attachment A to NRC Staff Motion for Summary Disposition (Nov. 18, 2005). Nonetheless, as the Board pointed out, NRC Staff experts reviewed the analysis and results, including the assumptions and models used, and confirmed it was still reasonable and appropriate to use in the National Enrichment Facility environmental impacts analysis. See LBP-06-9, 63 NRC at 311 n.11. It was not improper for the Staff to utilize information and conclusions drawn in a relevant analysis published in a prior FEIS. Further, since this proceeding will not approve a disposal facility, it is not necessary to have all underlying details now. The Claiborne analysis considered hypothetical disposal sites; if a deep disposal facility is ever proposed for licensing, actual site-specific data would need to be reviewed. Moreover, as the Board correctly held, Claiborne analysis challenges "should have been raised as part of the NIRS/PC challenge to the [Environmental Report]." See *id.* at 311.

convert to a UO_2 form.⁸⁴ It is reasonable to expect that any potential site selected for disposal of depleted uranium would be screened to assure that it has reducing (not oxidizing) conditions because under reducing conditions the isotopes in depleted uranium would be largely insoluble and largely impervious to water transport. NIRS/PC further claim that the Claiborne assumptions on uranium solubility are inconsistent with the assumptions in a Sandia National Laboratories analysis, but the analysis they cite was for a *near-surface* facility, where groundwater conditions would be oxidizing and the solubility factor therefore greater.⁸⁵

2. *Additional Considerations*

As we have stressed, this is not a disposal facility licensing proceeding. There may never be a need to dispose of the LES depleted uranium by deep disposal methods. At this time, the Envirocare near-surface disposal facility appears to be a suitable location, and additional near-surface facilities, such as the Nevada Test Site, Hanford, Barnwell, and the Waste Control Specialists facility are other potential disposal sites that can be evaluated and may prove suitable for safe disposal of large quantities of depleted uranium. Thus, while deep disposal methods are a waste disposal alternative, at this time they do not appear likely to be necessary. When LES filed its Environmental Report, its “preferred” disposal option was to find an exhausted uranium mine, but LES’s current preference is disposal by a private near-surface facility. Its second preference is to request the Department of Energy to accept the depleted uranium (DOE operates the Nevada Test Site near-surface disposal facility).⁸⁶

There is no currently licensed deep disposal facility, and no application pending for such a facility. Consequently, if in the future it were determined that no near-surface disposal facility is available or that a more protective form of disposal is needed, a detailed licensing review would be needed prior to any disposal decision. The Claiborne deep disposal analysis provides estimates of disposal

⁸⁴ See Answer of Applicant LES in Opposition To Petition for Review of LBP-06-08 and LBP-06-09 (Mar. 30, 2006) at 25 & n.25 (citing NRC Staff Response to NIRS/PC’s Partial Motion for Summary Disposition (Nov. 28, 2005) at 10-12, Attachment A at 5-7).

⁸⁵ See NIRS/PC Exh. 128 at 5-6, 21. Several of the same or similar arguments that NIRS/PC now raise were addressed in a Board decision issued in the earlier *Claiborne* uranium enrichment proceeding. See *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-97-22, 46 NRC 275 (1997), *vacated as moot*, CLI-98-5, 47 NRC 113 (1998).

⁸⁶ Section 3113(a) of the USEC Privatization Act requires DOE, if requested by an NRC-licensed uranium enrichment licensee, “to accept for disposal . . . depleted uranium if it were ultimately determined to be a low-level radioactive waste.” See 42 U.S.C. § 2297h-11 (2000). The Commission has determined that depleted uranium is a low-level radioactive waste, and that therefore transfer of the LES depleted uranium to DOE is a plausible waste disposal strategy. See CLI-05-5, 61 NRC at 34-35.

impacts at two hypothetical deep disposal sites (an abandoned mine in granite and in sandstone/basalt at depths of 950 and 2070 feet, respectively), but there are other kinds of potential deep disposal sites. Without the specific environmental and design characteristics of an actual disposal site, any deep disposal impacts analysis that can be prepared now can represent only a rough estimate of the impacts of disposing of the LES depleted uranium by a deep disposal method.

Because there is no current proposal for a deep disposal site, it is not feasible to determine actual site-specific values. In these circumstances, it is reasonable to defer more detailed analysis “until a concrete . . . proposal crystallizes” actual site data, allowing for a comprehensive, site-specific evaluation of probable impacts.⁸⁷ If necessary, design characteristics could then be altered (e.g., disposal depth) or a different kind of site considered. An “FEIS need only furnish such information as appears to be reasonably necessary under the circumstances for evaluation” of a proposed action,⁸⁸ in this case the licensing of a uranium enrichment facility. The Claiborne deep disposal dose estimates reflect a screening evaluation of the plausibility of safe deep disposal. This analysis was prepared for the earlier *Claiborne* proceeding, when LES’s preferred disposal option was deep disposal in a mine. Now, however, at least one near-surface disposal facility (Envirocare) appears to be a plausible option for LES’s depleted uranium. The Claiborne analysis remains useful as support for the *additional* (perhaps unneeded) disposal option of deep disposal. Deep disposal, because it involves burial of waste hundreds — if not thousands — of feet under the ground, would clearly provide a viable disposal alternative.

Even if there is error or inaccuracy in the dose estimates for the two hypothetical sites analyzed in the Claiborne analysis (and those dose estimates were far below regulatory limits), there is adequate reason to believe that a deep geologic disposal site can be found and designed to assure that radiological standards will be met. Indeed, in two reports submitted as hearing exhibits, NIRS/PC’s expert suggests a deep geologic disposal site like the Department of Energy’s Waste Isolation Pilot Plant (WIPP), which is used for disposal of transuranic waste.⁸⁹ The WIPP facility involves deep disposal in a sealed mine in bedded salt. As NIRS/PC’s reports note, there has been sufficient experience with the WIPP facility for a scientific

⁸⁷ See *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982).

⁸⁸ See *Fuel Safe Washington v. Federal Energy Regulatory Commission*, 389 F.3d 1313, 1329 (10th Cir. 2004).

⁸⁹ See NIRS/PC Exh. 190 at 27-28; NIRS/PC Exh. 224 at 22-23 (where NIRS/PC’s expert quotes Dr. John Bredehoeft’s statement that “[t]he type of site required for disposal of depleted uranium from NEF [National Enrichment Facility] is roughly comparable to the WIPP site in terms of the level of isolation required”).

consensus that the WIPP facility is safe for disposal of transuranic material.⁹⁰ In short, there has been sufficient experience with deep geological disposal to know that it can be made safe. Detailed plans and evaluations, however, can be done only when and if a deep disposal method and site are selected.

III. CONCLUSION

For the foregoing reasons, and for the reasons given by the Board, the Board decisions in LBP-06-8 and LBP-06-9 are *affirmed*, as supplemented by our decision today.⁹¹

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTITI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 2d day of June 2006.

⁹⁰ See NIRS/PC Exh. 224 at 23; NIRS/PC Exh. 190 at 27. It also bears noting that the uranium enrichment process does not *create* new radioactive waste. Unlike nuclear reactors, which produce high-level waste, the uranium enrichment process actually *depletes* uranium of the U-235 isotope. Thus, depleted uranium can be said to be less hazardous than much of the natural uranium already found under the ground, which is already in a form of “deep disposal.” Uranium becomes more hazardous with time because of the ingrowth of daughter products until it reaches secular equilibrium in approximately 1 to 2 million years. Assuming that depleted uranium is not carelessly disposed of, the uranium enrichment process (because it removes U-235) actually reduces some of the hazards associated with uranium in its own natural state.

⁹¹ Adjudicatory findings on NEPA issues, including our own in this decision, become part of the environmental “record of decision” and in effect supplement the FEIS. See *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 94 (1998), *aff’g* LBP-96-25, 44 NRC 331, 369-70 (1996); *see also* 10 C.F.R. § 52.102.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. IA-05-021

ANDREW SIEMASZKO

June 2, 2006

**RULES OF PRACTICE: INTERLOCUTORY APPEALS;
DISCRETIONARY INTERVENTION**

The Commission will reverse a licensing board's determination on discretionary intervention only if the Board has abused its discretion. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 34 (1998) ("PFS"); *Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1149, *reconsid'n denied*, ALAB-402, 5 NRC 1182 (1977). Under that review standard, the appellant faces a substantial burden. "It is not enough for [the appellant] to establish simply that the Licensing Board might justifiably have" reached the same conclusion as the appellant regarding the petition for discretionary intervention. *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), ALAB-952, 33 NRC 521, 532, *aff'd*, CLI-91-13, 34 NRC 185 (1991), quoting *Washington Public Power Supply System* (WPPSS Nuclear Project No. 3), ALAB-747, 18 NRC 1167, 1171 (1983). Rather, the appellant must persuade us "that a reasonable mind could reach no other result." *WPPSS*, ALAB-747, 18 NRC at 1171.

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

This agency has "broad discretion to provide hearings or permit interventions in cases where these avenues of public participation would not be available as

a matter of right’ — that is, discretionary intervention. *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 442 (1980), *aff’d*, *Save the Valley v. NRC*, 714 F.2d 142 (6th Cir. 1983) (Table). *See also* *Cities of Statesville v. AEC*, 441 F.2d 962, 976-77 (D.C. Cir. 1969).

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

In exercising discretion in ruling on requests for discretionary intervention, the NRC’s presiding officers and licensing boards traditionally consider the following six factors, originally developed in case law but now codified in our regulations:

- (1) Factors weighing in favor of allowing intervention [the “positive” factors] —
 - (i) The extent to which the requestor’s/petitioner’s participation may reasonably be expected to assist in developing a sound record;
 - (ii) The nature and extent of the requestor’s/petitioner’s property, financial or other interests in the proceeding; and
 - (iii) The possible effect of any decision or order that may be issued in the proceeding on the requestor’s/petitioner’s interest;
- (2) Factors weighing against allowing intervention [the “negative” factors] —
 - (i) The availability of other means whereby the requestor’s/petitioner’s interest will be protected;
 - (ii) The extent to which the requestor’s/petitioner’s interest will be represented by existing parties; and
 - (iii) The extent to which the requestor’s/petitioner’s participation will inappropriately broaden the issues or delay the proceeding.

10 C.F.R. § 2.309(e)(1)-(2). *See also* *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 616 (1976). The first of these factors — assistance in developing a sound record — is the most important. Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182, 2201, 2220 (Jan. 14, 2004) (“Final Rule”). *See also* *Pebble Springs*, CLI-76-27, 4 NRC at 617.

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

When a licensing board balances the six “discretionary intervention” factors, it must keep in mind that discretionary intervention is “an extraordinary procedure.” Final Rule, 69 Fed. Reg. at 2201.

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

Because the NRC resolves discretionary intervention motions largely on their facts (*Pebble Springs*, CLI-76-27, 4 NRC at 616), NRC legal precedent is less helpful than on most other adjudicatory issues. As we stated in our seminal *Pebble Springs* decision, the practice of granting or denying discretionary intervention should develop “not through precedent, but through attention to the concrete facts of particular situations.” *Id.* at 617. *Accord Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-12, 37 NRC 355, 358, *clarified on other issues*, CLI-93-19, 38 NRC 81 (1993).

RULES OF PRACTICE: APPELLATE REVIEW

“Abuse of discretion” is a high standard of review. The Commission routinely accords substantial deference to the Board on matters involving standing (*Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 324 (1999)) and also in the analogous area of credibility determinations (*Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-27 (2003)). Hence, the Commission does not lightly set aside a Board’s grant of discretionary intervention.

RULES OF PRACTICE: DISCRETIONARY INTERVENTION; STANDING

Under the NRC’s rules, the “standing” requirement does not apply to petitions for discretionary intervention. Discretionary intervention comes into play only “in the event that the petitioner is determined to lack standing to intervene as a matter of right under [10 C.F.R. § 2.309(d)(1)].” 10 C.F.R. § 2.309(e). The Commission’s regulatory history makes clear that discretionary intervention was created to afford party status to petitioners unable to demonstrate standing:

Under current agency case law, the Commission may . . . allow discretionary intervention to a person who does not meet standing requirements, where there is reason to believe the person’s participation will make a valuable contribution to the proceeding and where a consideration of the other criteria on discretionary intervention shows that such intervention is warranted.

Final Rule: “Streamlined Hearing Process for NRC Approval of License Transfers,” 63 Fed. Reg. 66,721, 66,724 (Dec. 3, 1998).

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

NRC procedural rules require a petitioner seeking to intervene as of right in NRC adjudication to demonstrate standing and to offer an admissible contention. 10 C.F.R. § 2.309(a), (d), (f). Although under our rules the “standing” requirement does not apply to petitions for discretionary intervention, the “admissible contention” requirement does. Nothing in our rules of practice excuses a petitioner seeking discretionary intervention from proposing “at least one admissible contention,” a general requirement covering *all* petitions to intervene. 10 C.F.R. § 2.309(a). Absent this requirement, a discretionary intervenor would be free to litigate issues it had not raised. This incongruity would give a discretionary intervenor a participatory role much broader than that of an intervenor as of right (who may litigate only its own contentions or those of another intervenor that it has properly adopted). *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 626-27 (2004); 10 C.F.R. § 2.309(f)(3).

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

“[W]e d[o] not intend that a petitioner should be entitled to discretionary intervention without an issue of its own worthy of exploration in an adjudication.” *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 346 (2002). *See also Commonwealth Edison Co.* (Dresden Nuclear Power Station, Unit 1), LBP-82-52, 16 NRC 183, 194 (1982) (dictum).

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

To be admissible, a contention must meet certain specificity and basis requirements and also must fall within the scope of the proceeding. 10 C.F.R. § 2.309(f)(1).

RULES OF PRACTICE: SCOPE OF PROCEEDING

The scope of an enforcement proceeding is narrow. Typically, enforcement orders limit adjudication to two issues only — whether the facts as stated in the order are true, and whether the proposed sanction is supported by those facts. *See, e.g., Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 404-11, *reconsid’n denied*, CLI-04-38, 60 NRC 652 (2004), *petition for review docketed sub nom. Farmer v. NRC*, No. 05-70718 (9th Cir. Feb. 11, 2005); *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 1; Sequoyah Nuclear Plant, Units 1 and 2; Browns Ferry Nuclear Plant, Units 1, 2, and 3), CLI-04-24, 60 NRC 160, 203 (2004). *See generally Bellotti v. NRC*, 725

F.2d 1380 (D.C. Cir. 1983). For instance, an enforcement contention might appropriately address the factual underpinnings of the NRC Staff’s finding of violation (*see, e.g., North Anna*, ALAB-363, 4 NRC at 633) or the mitigating factors to be considered in determining the penalty. By contrast, a contention seeking to challenge the agency’s overall enforcement policy would fall outside the scope of the enforcement proceeding and therefore be inadmissible.

RULES OF PRACTICE: CONTENTIONS (REFRAMING)

The Board may reframe contentions, following a determination of their admissibility, “for purposes of clarity, succinctness, and a more efficient proceeding.” *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), LBP-84-40A, 20 NRC 1195, 1199 (1984). *See also Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1479, 1483 (1982). But the Board must not redraft an inadmissible contention to cure deficiencies and thereby render it admissible. *See Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991). This bar against corrective redrafting is particularly compelling in the context of a request for discretionary intervention, for a Board rewrite of contentions undermines the very basis for granting discretionary intervention, i.e., the *Petitioner’s* demonstrated ability to contribute to the record. Such an action would be tantamount to raising a new issue *sua sponte* without the required prior permission from the Commission. 10 C.F.R. § 2.340(a); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-13, 53 NRC 478, 483 (2001).

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

“[G]eneralized expertise, even scientific eminence, is an insufficient substitute for particularized knowledge of the issues actually in dispute.” *PFS*, CLI-98-13, 48 NRC at 35. The most vivid example of this practice is our refusal in *PFS* to allow discretionary intervention to a distinguished group of scientists — including six Nobel laureates — because their knowledge was not specifically relevant to the proceeding at bar. *See id.*, 48 NRC at 34-35, *aff’g* LBP-98-7, 47 NRC at 177-78. In justifying as “extraordinary [a] procedure” as discretionary intervention (Final Rule, 69 Fed. Reg. at 2201), the Board should identify the *specific* contributions that Petitioners could offer.

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

A denial of a motion for discretionary intervention does not eliminate all

possibility of Petitioners' participation in the litigation; e.g., Petitioners could request permission to participate as *amici curiae* on appropriate issues (10 C.F.R. § 2.315(d)), and/or their representative could serve as an advisor to Mr. Siemaszko, or (if qualified) as an expert witness (*Diablo Canyon*, CLI-02-16, 55 NRC at 346; *PFS*, CLI-98-13, 48 NRC at 35).

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

When issuing its discretionary intervention rule, the Commission characterized the "sound record" factor as "foremost" in importance, but also indicated that other factors, especially the last (inappropriate broadening or delay of the proceeding) could overcome it. *See* Final Rule, 69 Fed. Reg. at 2201. Consistent with this principle, prior adjudicatory decisions have typically examined all six discretionary intervention factors, regardless of the result on the critical first factor ("assist in developing a sound record"). *See, e.g., Tennessee Valley Authority* (Watts Bar Nuclear Plant, Units 1 and 2), ALAB-413, 5 NRC 1418, 1422-23 (1977), *aff'g* LBP-77-36, 5 NRC 1292, 1296 (1977); *Ohio Edison Co.* (Perry Nuclear Power Plant, Unit 1), LBP-91-38, 34 NRC 229, 250-51 (1991); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-24, 32 NRC 12, 16-17 & n.16 (1990), *aff'd*, ALAB-952, 33 NRC 521, *aff'd*, CLI-91-13, 34 NRC 185 (1991); *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), LBP-81-24, 14 NRC 175, 179 (1981). Even so, the Commission is aware of no NRC decision allowing discretionary intervention in the face of a negative finding on the "sound record" factor.

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

A policy of granting discretionary intervention whenever a petitioner has more experience or background than another participant or party could lead to complex and inappropriate comparative inquiries into various participants', parties', and lawyers' resources and experience. An open-ended approach like this would also be inconsistent with the Commission's view that "discretionary intervention is an extraordinary procedure, and will not be allowed unless there are compelling factors in [its] favor." Final Rule, 69 Fed. Reg. at 2201. Discretionary intervention is meant to ensure a sound adjudicatory record, not simply to provide a second representative to assist (allegedly) ill-represented parties.

RULES OF PRACTICE: DISCRETIONARY INTERVENTION

The Commission expects boards taking the extraordinary action of allowing discretionary intervention to set out specific findings on each pertinent factor.

MEMORANDUM AND ORDER

This adjudication stems from an enforcement “Order Prohibiting Involvement in NRC-Licensed Activities” (“Enforcement Order”) which the NRC Staff issued to Andrew Siemaszko.¹ The Enforcement Order found that Mr. Siemaszko had violated 10 C.F.R. § 50.5 by making material false statements in a matter within the NRC’s jurisdiction. Specifically, the NRC Staff found that Mr. Siemaszko, while working as a systems engineer at the Davis-Besse Nuclear Power Station (“Davis-Besse”) in Ohio, “deliberately provided materially incomplete and inaccurate information” in a condition report and a work order, “that are records that the NRC requires the Licensee to maintain.” The Staff determined that this information “was material to the NRC because the presence of boric acid deposits on the [reactor pressure vessel] head is a significant condition adverse to quality that went uncorrected, in part, due to Mr. Siemaszko’s actions. As such, the Staff found that Mr. Siemaszko had “engaged in deliberate misconduct” that caused FENOCO [FirstEnergy Nuclear Operating Company, the plant operator] to be in violation of NRC regulations.²

Mr. Siemaszko sought and was granted a hearing before the Atomic Safety and Licensing Board (“Board”) to challenge the Enforcement Order.³ The Union of Concerned Scientists and Ohio Citizen Action (collectively, “Petitioners” or “UCS/OCA”) subsequently sought to intervene in the case. The Board issued an unpublished order determining that Petitioners had neither established standing as a matter of right nor clearly sought discretionary standing.⁴ The Board, however,

¹ 70 Fed. Reg. 22,719 (May 2, 2005).

² *Id.*

³ See Unpublished Board “Order (Granting Licensee’s Hearing Request),” dated May 19, 2005, ADAMS Accession No. ML051390490. (ADAMS is the acronym for the NRC’s Agencywide Documents Access and Management System, which is publicly accessible through the NRC’s Web page at <http://www.nrc.gov>.) Our enforcement rules provide for an automatic grant of such hearing requests. 10 C.F.R. § 2.202.

⁴ Unpublished Board “Memorandum and Order,” dated August 2, 2005, ADAMS Accession No. ML052140339 (“August 2d Order”). The Board also ruled (*id.*, slip op. at 7 n.20) that Petitioners, if granted discretionary intervention, would be limited to arguing the following three contentions (as reworded by the Board):

Contention 2: Whether the facts support the conclusion that Andrew Siemaszko deliberately provided incomplete and inaccurate information in Condition Report No. 2000-1037 and Work Order No. 00-001846-000.

Contention 3: Whether the facts support the finding that Andrew Siemaszko intentionally provided an incomplete and inaccurate description of the work activities and corrective actions taken relative to the presence of boric acid deposits on the RPV head knowing that by doing so he would cause FENOCO to be in violation of NRC Regulations.

(Continued)

gave Petitioners an opportunity to clarify their intention, and they responded by requesting discretionary intervention.

On December 22, 2005, the Board issued an unpublished order which, among many other things, granted Petitioners' request for discretionary intervention.⁵ On January 3, 2006, the NRC Staff filed the instant appeal of that ruling. (The remainder of the December 22d Order is unchallenged.) The Staff asserts on appeal that granting discretionary intervention constituted an abuse of discretion. Although Petitioners filed no brief opposing the Staff's appeal, Mr. Siemaszko did. After reviewing the December 22d decision and the appellate briefs, we vacate the "discretionary intervention" portion of the Board's order and remand that issue to the Board for further proceedings consistent with the views we set out below.

I. LEGAL STANDARDS

We will reverse a licensing board's determination on discretionary intervention only if the board has abused its discretion.⁶ Under that review standard, the appellant faces a substantial burden. "It is not enough for [the appellant] to establish simply that the Licensing Board might justifiably have" reached the same conclusion as the appellant regarding the petition for discretionary intervention.⁷ Rather, the appellant must persuade us "that a reasonable mind could reach no other result."⁸

This agency has "broad discretion to provide hearings or permit interventions in cases where these avenues of public participation would not be available as a matter of right"⁹ — that is, discretionary intervention. In exercising this discretion, our presiding officers and licensing boards traditionally consider the

Contention 5: Whether the 5 year suspension of Mr. Siemaszko, in light of all relevant aggravating, mitigating, and extenuating circumstances, is an appropriate sanction in this matter.

⁵ Unpublished Board "Memorandum and Omnibus Order," dated December 22, 2005, at 5, ADAMS Accession No. ML053620283 ("December 22d Order").

⁶ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 34 (1998) ("PFS"); *Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1149, *reconsid'n denied*, ALAB-402, 5 NRC 1182 (1977).

⁷ *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), ALAB-952, 33 NRC 521, 532, *aff'd*, CLI-91-13, 34 NRC 185 (1991), quoting *Washington Public Power Supply System* (WPPSS Nuclear Project No. 3), ALAB-747, 18 NRC 1167, 1171 (1983).

⁸ WPPSS, ALAB-747, 18 NRC at 1171.

⁹ *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 442 (1980), *aff'd*, *Save the Valley v. NRC*, 714 F.2d 142 (6th Cir. 1983) (Table). See also *Cities of Statesville v. AEC*, 441 F.2d 962, 976-77 (D.C. Cir. 1969).

following six factors, originally developed in case law but now codified in our regulations:

- (1) Factors weighing in favor of allowing intervention [the “positive” factors] —
 - (i) The extent to which the requestor’s/petitioner’s participation may reasonably be expected to assist in developing a sound record;
 - (ii) The nature and extent of the requestor’s/petitioner’s property, financial or other interests in the proceeding; and
 - (iii) The possible effect of any decision or order that may be issued in the proceeding on the requestor’s/petitioner’s interest;
- (2) Factors weighing against allowing intervention [the “negative” factors] —
 - (i) The availability of other means whereby the requestor’s/petitioner’s interest will be protected;
 - (ii) The extent to which the requestor’s/petitioner’s interest will be represented by existing parties; and
 - (iii) The extent to which the requestor’s/petitioner’s participation will inappropriately broaden the issues or delay the proceeding.¹⁰

The first factor — assistance in developing a sound record — is the most important.¹¹

When a licensing board balances these six factors, it must keep in mind that discretionary intervention is “an extraordinary procedure.”¹² Indeed, in the last dozen years, neither we nor our licensing boards have granted *any* requests for discretionary intervention.¹³ Only eight such petitions have *ever* been granted

¹⁰ 10 C.F.R. § 2.309(e)(1)-(2). See also *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 616 (1976).

¹¹ Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182, 2201, 2220 (Jan. 14, 2004) (“Final Rule”). See also *Pebble Springs*, CLI-76-27, 4 NRC at 617.

¹² Final Rule, 69 Fed. Reg. at 2201.

¹³ See *Nuclear Fuel Services, Inc.* (Erwin, Tennessee), LBP-04-5, 59 NRC 186, 196 n.11, *aff’d*, CLI-04-13, 59 NRC 244 (2004); *Tennessee Valley Authority* (Sequoyah Nuclear Plant, Units 1 and 2; Watts Bar Nuclear Plant, Unit 1), LBP-02-14, 56 NRC 15, 28-29 (2002); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 346 (2002); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 177-78 (1998), *aff’d*, CLI-98-13, 48 NRC at 34; *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-98-12, 47 NRC 343, 358, *aff’d in part and rev’d in part on other grounds*, CLI-98-21, 48 NRC 185 (1998); *General Public Utilities Nuclear Corp.* (Oyster Creek Nuclear Generating Station), LBP-96-23, 44 NRC 143, 160-61 (1996); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95, 103 (1995). Cf. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-00-23, 52 NRC 114, 124 n.6, *aff’d*, CLI-00-21, 52 NRC 261 (2000) (stating in dictum that, had petitioner requested discretionary intervention, the Board would have denied the request); *Shieldalloy Metallurgical Corp.* (Cambridge, Ohio Facility), LBP-99-12, 49

(Continued)

(without reversal)¹⁴ during the 30 years we have applied the current six-factor test¹⁵ — and the Commission or Appeal Board has taken the unusual step of declaring that *three* of those grants carry no precedential weight.¹⁶

Finally, because this agency resolves discretionary intervention motions largely on their facts,¹⁷ NRC legal precedent is less helpful than on most other adjudicatory issues. As we stated in our seminal *Pebble Springs* decision, the practice of granting or denying discretionary intervention should develop “not through precedent, but through attention to the concrete facts of particular situations.”¹⁸

II. THE BOARD’S DECEMBER 22 ORDER

Regarding the first and most important factor (ability to assist in developing a sound record), the Board relied on “the totality of [its] experience to date” with Petitioners¹⁹ and found that they could assist it in developing a sound record. According to the Board, “Petitioners’ written submissions in this proceeding and their oral presentations at [the] prehearing conferences” demonstrate that they “are extremely knowledgeable in the factual, scientific, and regulatory areas that will be the focus of our hearings”²⁰ The Board also relied on Petitioners’ “broad experience with Commission proceedings” which, according to the Board, “stands in marked contrast with the circumstances of Mr. Siemaszko, a

NRC 155, 159 n.4, *aff’d*, CLI-99-12, 49 NRC 347 (1999) (same). *But cf. Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54, 75-76 n.23, *aff’d*, CLI-94-12, 40 NRC 64 (1994) (not reaching issue but stating in dictum that petitioner had “made a sufficient showing under the *Pebble Springs* factors”).

¹⁴ *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, *reconsidered and denied*, CLI-93-12, 37 NRC 355, 358-59, *clarified on other issues*, CLI-93-19, 38 NRC 81 (1993); *Ohio Edison Co.* (Perry Nuclear Power Plant, Unit 1), LBP-91-38, 34 NRC 229, 250-51 (1991), *appeal denied*, CLI-92-11, 36 NRC 47 (1992), *petition for review denied*, *City of Cleveland v. NRC*, 68 F.3d 1361 (D.C. Cir. 1995); *Consolidated Edison Co. of New York* (Indian Point, Unit 2), CLI-82-15, 16 NRC 27, 31 (1982), adopting as its own ruling the one-sentence dictum from LBP-82-25, 15 NRC 715, 736 n.10 (1982); *Consumers Power Co.* (Palisades Nuclear Power Facility), ALAB-670, 15 NRC 493, 499-506, *vacated as moot*, CLI-82-18, 16 NRC 50 (1982); *Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 2), LBP-79-1, 9 NRC 73, 87-88 (1979); *Black Fox*, ALAB-397, 5 NRC at 1148-49; *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-363, 4 NRC 631, 633-34 (1976); *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), ALAB-362, 4 NRC 627, 629 (1976).

¹⁵ *Pebble Springs*, CLI-76-27, 4 NRC at 614-17.

¹⁶ *Rancho Seco*, CLI-93-3, 37 NRC at 141; *Palisades*, CLI-82-18, 16 NRC at 52; *Pebble Springs*, ALAB-362, 4 NRC at 629.

¹⁷ *Pebble Springs*, CLI-76-27, 4 NRC at 616.

¹⁸ *Id.* at 617. *Accord Rancho Seco*, CLI-93-12, 37 NRC at 358.

¹⁹ December 22d Order, slip op. at 4.

²⁰ *Id.*

private individual with no previous experience with NRC enforcement proceedings, who is being represented in this matter *pro bono* by a small law firm with limited resources.”²¹ The Board further concluded that “representatives of the UCS/OCA have immersed themselves in the facts of th[e] incident [at Davis-Besse] to a degree that would be impossible for Mr. Siemaszko to duplicate” and that “Mr. Siemaszko . . . simply lacks the knowledge and experience of the Petitioners.”²²

The Board also found that positive factor (ii) (nature of interests) supports a grant of discretionary intervention to Petitioners. According to the Board, Petitioners are “a nonprofit partnership of scientists and citizens combining rigorous scientific analysis, innovative policy development, and effective citizen advocacy to achieve practical environmental solutions and . . . ha[ve] long sought consistent enforcement of the Commission’s regulations.”²³

The Board reached a similar conclusion regarding positive factor (iii) (adverse effect on interests). The Board concluded that “possible adverse effects . . . on [Petitioners’] interests [are premised on the idea] that misguided enforcement actions have the very real potential for undermining worker and public confidence in the NRC’s oversight capability.”²⁴

Finally, regarding all three negative factors, the Board found summarily “that Petitioners have sufficiently explained why their interests would not be adequately represented by the other parties, that there do not exist other means of serving Petitioners’ interests that will be as efficient as admitting them to this proceeding, and that the issues to be resolved in this proceeding will not be broadened, nor will their resolution be delayed, by admitting UCS/OCA as a party to this proceeding.”²⁵

III. DISCUSSION

We initially observe that “abuse of discretion” is a high standard of review, and that the Board — unlike the Commissioners — has seen Petitioners’ representative, Mr. Lochbaum, and has had the opportunity to “take his measure” as a potential contributor to this particular hearing. We routinely accord substantial deference to the Board on matters involving standing²⁶ and also in the analogous

²¹ *Id.*

²² *Id.*

²³ *Id.* at 2-3 (footnotes and internal quotation marks omitted).

²⁴ *Id.* at 3 (footnote omitted).

²⁵ *Id.* at 4.

²⁶ *See, e.g., Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 324 (1999).

area of credibility determinations.²⁷ Hence, we do not lightly set aside the Board's grant of discretionary intervention here.

But we find the Board's explanation of its ruling in some respects too cursory to evaluate fully and in other respects in error. Thus, we vacate the discretionary intervention portion of the December 22d order and remand the matter to the Board for further consideration, consistent with today's decision.

A. Need for an Admissible Contention

NRC procedural rules require a petitioner seeking to intervene as of right in NRC adjudication to demonstrate standing and to offer an admissible contention.²⁸ Although under our rules the "standing" requirement does not apply to petitions for discretionary intervention,²⁹ the "admissible contention" requirement does. Nothing in our rules of practice excuses a petitioner seeking discretionary intervention from proposing "at least one admissible contention," a general requirement covering *all* petitions to intervene.³⁰ Absent this requirement, a discretionary intervenor would be free to litigate issues it had not raised. This incongruity would give a discretionary intervenor a participatory role much broader than that of an intervenor as of right (who may litigate only its own contentions or those of another intervenor that it has properly adopted).³¹

As we stated in *Diablo Canyon* (a licensing proceeding), "we d[o] not intend that a petitioner should be entitled to discretionary intervention without an issue of its own worthy of exploration in an adjudication."³² Although we have not

²⁷ See, e.g., *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-27 (2003).

²⁸ See 10 C.F.R. § 2.309(a), (d), (f).

²⁹ Discretionary intervention comes into play only "in the event that the petitioner is determined to lack standing to intervene as a matter of right under [10 C.F.R. § 2.309(d)(1)]." 10 C.F.R. § 2.309(e). The Commission's regulatory history makes clear that discretionary intervention was created to afford party status to petitioners unable to demonstrate standing:

Under current agency case law, the Commission may . . . allow discretionary intervention to a person who does not meet standing requirements, where there is reason to believe the person's participation will make a valuable contribution to the proceeding and where a consideration of the other criteria on discretionary intervention shows that such intervention is warranted.

Final Rule: "Streamlined Hearing Process for NRC Approval of License Transfers," 63 Fed. Reg. 66,721, 66,724 (Dec. 3, 1998).

³⁰ See 10 C.F.R. § 2.309(a).

³¹ See *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 626-27 (2004); 10 C.F.R. § 2.309(f)(3).

³² *Diablo Canyon*, CLI-02-16, 55 NRC at 346. See also *Commonwealth Edison Co.* (Dresden Nuclear Power Station, Unit 1), LBP-82-52, 16 NRC 183, 194 (1982) (dictum: "We do not believe the
(Continued)

previously had the opportunity to apply this requirement in an enforcement proceeding, we do so today.

To be admissible, a contention must meet certain specificity and basis requirements and also must fall within the scope of the proceeding.³³ The scope of an enforcement proceeding is narrow. Typically, enforcement orders limit adjudication to two issues only — whether the facts as stated in the order are true, and whether the proposed sanction is supported by those facts.³⁴ For instance, an enforcement contention might appropriately address the factual underpinnings of the NRC Staff’s finding of violation³⁵ or the mitigating factors to be considered in determining the penalty. By contrast, a contention seeking to challenge the agency’s overall enforcement policy would fall outside the scope of the enforcement proceeding and therefore be inadmissible.

Although the Board in its August 2d Order implicitly admitted three of the five proffered contentions,³⁶ it has yet to rule definitively on their admissibility. Nor has it explained why those three contentions are admissible. Therefore, we instruct the Board that, before it reconsiders the six discretionary intervention factors on remand, it must address the following threshold question: whether Petitioners submitted at least one admissible contention. If the Board finds that they have not, then it need not consider whether the six discretionary intervention factors, on balance, weigh for or against intervention.

When conducting its analysis, the Board should determine whether the contention is admissible *as submitted*. The Board may reframe contentions, following a determination of their admissibility, “for purposes of clarity, succinctness, and a more efficient proceeding.”³⁷ But the Board must not redraft an inadmissible

Commission intended that a petitioner without a valid contention should be entitled to discretionary intervention, nor do we believe that a petitioner could qualify for discretionary intervention without a contention worthy of exploration in an adjudication”).

³³ 10 C.F.R. § 2.309(f)(1).

³⁴ See, e.g., *Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 404-11, *reconsidered denied*, CLI-04-38, 60 NRC 652 (2004), *petition for review docketed sub nom. Farmer v. NRC*, No. 05-70718 (9th Cir. Feb. 11, 2005); *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 1; Sequoyah Nuclear Plant, Units 1 and 2; Browns Ferry Nuclear Plant, Units 1, 2, and 3), CLI-04-24, 60 NRC 160, 203 (2004). See generally *Bellotti v. NRC*, 725 F.2d 1380 (D.C. Cir. 1983).

³⁵ See, e.g., *North Anna*, ALAB-363, 4 NRC at 633 (“given the role that [Sun Ship] played in the fabrication of these particular supports, Sun Ship is well equipped to make a ‘genuinely significant’ contribution to that exploration”).

³⁶ August 2d Order, slip op. at 7 n.20 (“if admitted to this proceeding pursuant to 10 C.F.R. § 2.309(e), OCA/UCS would not be litigating their contentions as drafted, but rather would be limited to litigating” the reframed contentions quoted in note 4, *supra*).

³⁷ *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), LBP-84-40A, 20 NRC 1195, 1199 (1984). See also *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1479, 1483 (1982).

contention to cure deficiencies and thereby render it admissible.³⁸ Such an action would be tantamount to raising a new issue *sua sponte* without the required prior permission from the Commission.³⁹

B. The Six Factors Relevant to Petitions for Discretionary Intervention

1. Ability To Contribute to a Sound Record

Pointing to “the totality of [its] experience to date” with Petitioners,⁴⁰ the Board allowed discretionary intervention chiefly because it found Petitioners “extremely knowledgeable in the factual, scientific, and regulatory areas that will be the focus of” the hearing.⁴¹ The Board did not further explain its finding.

Petitioners, as organizations that, among other things, monitor and comment on nuclear power plant operations, no doubt have considerable general knowledge of issues related to power plants, including the Davis-Besse plant. But “generalized expertise, even scientific eminence, is an insufficient substitute for particularized knowledge of the issues actually in dispute.”⁴² In justifying as “extraordinary [a] procedure” as discretionary intervention,⁴³ the Board should identify the *specific* contributions that Petitioners could offer.⁴⁴

The Board’s brief comment that Petitioners “have immersed themselves in the facts of th[e Davis-Besse] incident to a degree that would be impossible for Mr. Siemaszko to duplicate”⁴⁵ is too general to give us the necessary assurance that Petitioners would contribute to a sound record in this adjudication. We therefore remand this particular issue (i.e., the ability to contribute to the development of a sound record) to the Board for further consideration. We also instruct the Board

³⁸ See *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991). The bar against corrective redrafting is particularly compelling in the context of a request for discretionary intervention, for a Board rewrite of contentions undermines the very basis for granting discretionary intervention, i.e., the *Petitioner’s* demonstrated ability to contribute to the record.

³⁹ 10 C.F.R. § 2.340(a); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-13, 53 NRC 478, 483 (2001).

⁴⁰ December 22d Order, slip op. at 4. See also *id.*, slip op. at 3 n.7.

⁴¹ *Id.* at 4.

⁴² *PFS*, CLI-98-13, 48 NRC at 35. The most vivid example of this practice is our refusal in *PFS* to allow discretionary intervention to a distinguished group of scientists — including six Nobel laureates — because their knowledge was not specifically relevant to the proceeding at bar. See *id.*, 48 NRC at 34-35, *aff’g* LBP-98-7, 47 NRC at 177-78.

⁴³ Final Rule, 69 Fed. Reg. at 2201.

⁴⁴ See August 2d Order, slip op. at 7 n.20.

⁴⁵ December 22d Order, slip op. at 4.

on remand to examine closely the relevant portion of the adjudicatory record⁴⁶ and to render a record-based analysis and finding on the question whether Petitioners would bring useful knowledge or insight to the proceeding beyond their general background knowledge and expertise.

If the Board cannot identify specific contributions it expects from Petitioners, then the Board should deny their request to intervene as parties, absent other “compelling” factors favoring intervention (which we briefly discuss in Part B.2 of this Order, below).⁴⁷ As we have previously observed, a denial of a motion for discretionary intervention does not eliminate all possibility of Petitioners’ participation in the litigation, e.g., Petitioners could request permission to participate as *amici curiae* on appropriate issues,⁴⁸ and/or their representative could serve as an advisor to Mr. Siemaszko, or (if qualified) as an expert witness.⁴⁹

Before leaving our review of the Board’s discussion of the “sound record” factor, we must address the Board’s implicit finding that Mr. Siemaszko needs special help from Petitioners both to develop a sound record and to mount an adequate defense against the NRC Staff’s enforcement order. The Board, for example, characterized Mr. Siemaszko’s attorney, Billie Garde, as merely a member of “a small law firm with limited resources,” representing him *pro bono*.⁵⁰ But Ms. Garde is not unfamiliar with NRC proceedings. The Board gave insufficient weight to the fact that Ms. Garde has practiced in various legal capacities — adjudicatory and otherwise — before this agency since 1982.⁵¹ Most

⁴⁶ The relevant portion of the adjudicatory record is limited to the Petition To Intervene containing the request for discretionary intervention, and any responsive Answers and Replies. See 10 C.F.R. § 2.309(h). The instant case, however, has a somewhat larger record because the Board allowed Petitioners to file an amended Petition To Intervene setting forth, arguably for the first time, their request for discretionary intervention. See note and associated text, *supra*.

⁴⁷ When issuing our discretionary intervention rule, we characterized the “sound record” factor as “foremost” in importance, but we also indicated that other factors, especially the last (inappropriate broadening or delay of the proceeding) could overcome it. See Final Rule, 69 Fed. Reg. at 2201. Consistent with this principle, prior adjudicatory decisions have typically examined all six discretionary intervention factors, regardless of the result on the critical first factor (“assist in developing a sound record”). See, e.g., *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Units 1 and 2), ALAB-413, 5 NRC 1418, 1422-23 (1977), *aff’d* LBP-77-36, 5 NRC 1292, 1296 (1977); *Perry*, LBP-91-38, 34 NRC at 250-51; *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-24, 32 NRC 12, 16-17 & n.16 (1990), *aff’d*, ALAB-952, 33 NRC 521, *aff’d*, CLI-91-13, 34 NRC 185 (1991); *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), LBP-81-24, 14 NRC 175, 179 (1981). Even so, we are aware of no NRC decision allowing discretionary intervention in the face of a negative finding on the “sound record” factor.

⁴⁸ See 10 C.F.R. § 2.315(d).

⁴⁹ See, e.g., *Diablo Canyon*, CLI-02-16, 55 NRC at 346; *PFS*, CLI-98-13, 48 NRC at 35.

⁵⁰ December 22d Order, slip op. at 4.

⁵¹ Letter from Ms. Garde to Mr. David Meyer (NRC), dated May 11, 2000, ADAMS Accession No. ML003725293.

recently, she represented a petitioner in a 2004 enforcement adjudication against the Alaska Department of Transportation and Public Facilities.⁵² She has also participated as counsel of record in three other NRC adjudications — representing a petitioner to intervene in *Turkey Point*,⁵³ an intervenor in *Comanche Peak*,⁵⁴ and a licensee in *H&G Inspection Co.*⁵⁵

In any event, even were the Board’s concern about Ms. Garde’s background and ability to defend Mr. Siemaszko better founded, we still would not rely on it to justify granting discretionary intervention. A policy of granting discretionary intervention whenever a petitioner has more experience or background than another participant or party could lead to complex and inappropriate comparative inquiries into various participants’, parties’, and lawyers’ resources and experience. An open-ended approach like this would also be inconsistent with our view that “discretionary intervention is an extraordinary procedure, and will not be allowed unless there are compelling factors in [its] favor.”⁵⁶

Discretionary intervention is meant to ensure a sound adjudicatory record, not simply to provide a second representative to assist (allegedly) ill-represented parties. Here, though, rather than concentrating on Petitioners’ potential contribution to the record, the Board focused on what it considered the disadvantages of Mr. Siemaszko and his counsel. In other words, the Board largely based its “sound record” ruling *not* on Petitioners’ relevant knowledge and experience (the test in 10 C.F.R. § 2.309(e)), but instead on Mr. Siemaszko’s and his counsel’s purported *lack* of such knowledge and experience. This was legal error.

We turn now, briefly, to the remaining five factors which must be considered when ruling on requests for discretionary intervention.

2. *Other Discretionary Intervention Factors*

The Board offered an incomplete explanation of how the remaining discretionary intervention factors affected its determination. The Board brushed aside in a single sentence all three of the so-called “negative” factors (other means to protect petitioners’ interests, the adequacy of existing representation of petitioners’

⁵² *Alaska Department of Transportation & Public Facilities* (Anchorage, AK), LBP-04-16, 60 NRC 99, *rev’d*, CLI-04-26, 60 NRC 399, *reconsidered denied*, CLI-04-38, 60 NRC 652 (2004), *appeal docketed sub nom. Farmer v. NRC*, No. 05-70718 (9th Cir. Feb. 11, 2005).

⁵³ *Turkey Point*, LBP-90-24, 32 NRC 12 (1990), *aff’d*, ALAB-952, 33 NRC 521, *aff’d*, CLI-91-13, 34 NRC 185 (1991).

⁵⁴ *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), LBP-88-18B, 28 NRC 103 (1988).

⁵⁵ *H&G Inspection Co.*, ALJ-89-1, 29 NRC 319 (1989).

⁵⁶ Final Rule, 69 Fed. Reg. at 2201.

interests, and the potential for delay⁵⁷), stating merely that Petitioners have “sufficiently explained” why those factors do not defeat discretionary intervention. But it is not self-evident why that is so, given that Mr. Siemaszko is contesting the enforcement order with able counsel, that Petitioners could participate in an *amicus*, advisory, or, potentially, even an expert-witness capacity, and that admitting additional parties could inappropriately delay the proceeding. We do not hold that the Board’s findings necessarily constitute an abuse of discretion, only that they are unexplained and do not come to grips with seemingly contradictory considerations. The Board’s terse, one-sentence statement addressing all three negative factors is, in our view, uninformative.

The same can also be said of the remaining two “positive” discretionary intervention factors — Petitioners’ interests and the *Siemaszko* proceeding’s potential effect on them.⁵⁸ Again, the Board simply states that Petitioners here meet those factors, but without providing a sufficient explanation. To all appearances, though, Petitioners’ safety and environmental concerns are quite generalized, and not specific to this enforcement action.⁵⁹ While we would not expect discretionary intervenors to show the same kind of “injury-in-fact” necessary for standing as of right — indeed, the Board here has already held that Petitioners lack such injury⁶⁰ — our rules still contemplate something more specific than merely a general policy interest in issues surrounding nuclear power.⁶¹ Again, we expect boards taking the “extraordinary” action⁶² of allowing discretionary intervention to set out specific findings on each pertinent factor.

We therefore remand to the Board these issues as well, with instructions to conduct a more detailed analysis of these five factors.

IV. CONCLUSION

For the foregoing reasons, we *vacate* the “discretionary intervention” portion of the Board’s December 22d Order, *remand* the “discretionary intervention” issue to the Board, including the issue of whether Petitioners have submitted an admissible contention, and *direct* the Board to reconsider the issue in light of the views we express in today’s decision.

⁵⁷ 10 C.F.R. § 2.309(e)(2).

⁵⁸ 10 C.F.R. § 2.309(e)(1)(ii) & (iii). Today’s decision already addresses the other “positive” factor, i.e., “assist[ance] in developing a sound record.”

⁵⁹ The Board found potential injury because “misguided enforcement actions have the very real potential for undermining worker and public confidence in the NRC’s oversight capability.” August 2d Order, slip op. at 3 (footnote omitted).

⁶⁰ See August 2d Order.

⁶¹ See *PFS*, LBP-98-7, 47 NRC at 177.

⁶² Final Rule, 69 Fed. Reg. at 2201.

IT IS SO ORDERED.⁶³

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 2d day of June 2006.

Commissioner Gregory B. Jaczko Respectfully Dissents

I offer a separate dissenting opinion on this Order because I disagree with the majority that discretionary intervenors seeking to participate in an enforcement proceeding should, in addition to meeting the other regulatory requirements, also be required to file admissible contentions. As the majority recognizes, the scope of enforcement proceedings is very narrow, typically limited to only two issues — whether the facts as stated in the order are accurate and whether the proposed sanctions are supported by the facts. With only two areas subject to admissible contentions, it seems a meaningless request to require those seeking discretionary intervention to restate one or both of these issues. The majority is concerned that absent an admissible contention requirement, a discretionary intervenor might have a much greater participatory role than that of an intervenor as of right. This concern, however, is not persuasive in the context of an enforcement proceeding where all participants are limited to discuss only those issues specified in the order. Since requiring an admissible contention of discretionary intervenors in enforcement proceedings results in little more than an unnecessary and inefficient paperwork exercise, I do not support the Commission's holding in this regard.

Moreover, requiring those seeking discretionary intervention to file an admissible contention, in addition to meeting the regulatory requirements outlined in 10 C.F.R. § 2.309(e), results in a largely duplicative analysis on the part of those determining whether or not to grant the intervention. The analysis that must be undertaken to determine if the discretionary intervention standards are met ultimately addresses the same concerns as the contention admissibility standards. For example, contention admissibility requirements aimed at ensuring that only

⁶³We recently affirmed a Board Order holding this proceeding in abeyance pending a related criminal proceeding. *See* CLI-06-12, 63 NRC 495 (2006). Notwithstanding the abeyance order, we expressly authorize the Board to resolve the discretionary intervention issue now, in order to avoid unnecessary procedural delay or confusion when the merits proceeding resumes.

issues within the scope of the proceeding are raised involve the same discussion as the element required to be addressed when reviewing whether the requestor for discretionary intervention would inappropriately broaden the issues or delay the proceeding (10 C.F.R. § 2.309(e)(2)(iii)). Likewise, ensuring that a contention has the necessary factual and evidentiary support in order to be admissible will involve the same discussion as addressing the extent to which the requestor's participation may reasonably be expected to assist in developing a sound record (10 C.F.R. § 2.309(e)(1)(I)). Given the overlapping nature of the requirements for contention admissibility and for discretionary intervention in the context of an enforcement proceeding, requiring a requestor to meet both offers no additional benefits to the process and at the same time appears inconsistent with the Commission's interests over the years in seeking additional efficiencies in adjudicatory proceedings.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield
Gregory B. Jaczko
Peter B. Lyons

In the Matter of

Docket No. 50-255-LR

**NUCLEAR MANAGEMENT
COMPANY, LLC
(Palisades Nuclear Plant)**

June 23, 2006

CONTENTIONS, LATE-FILED

A reply cannot expand the scope of the arguments set forth in the original pleading. *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223 (2004), *reconsideration denied*, CLI-04-35, 60 NRC 619 (2004). *Accord, USEC, Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 439 (2006). Replies must focus narrowly on the legal or factual arguments first presented in the original petition or raised in the answers to it.

CONTENTIONS, LATE-FILED

New bases for a contention cannot be introduced in a reply brief, or any other time after the date the original contentions are due, unless the petitioner meets the late-filing criteria set forth in 10 C.F.R. § 2.309(c), (f)(2). While a petitioner need not introduce at the contention phase every document on which it will rely in a hearing, if the contention as originally pled did not cite adequate documentary support, a petitioner cannot remediate the deficiency by introducing in the reply documents that were available to it during the time frame for initially filing contentions. Allowing new claims in a reply would defeat the contention-filing deadline and unfairly deprive other participants an opportunity to rebut the new claims.

CONTENTIONS, LATE-FILED

Petitioners would not be able to meet the criteria for filing amended or new contentions after the initial filing because the documentary material upon which the new or amended contention was based was not previously unavailable to the Petitioners. 10 C.F.R. § 2.309(f)(2)(i).

LICENSE RENEWAL

A claim that the pads for storing spent fuel storage are defective is outside the scope of a nuclear power plant operating license renewal proceeding. *See Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 344 n.4 (1999).

MEMORANDUM AND ORDER

Petitioners Nuclear Information and Resource Service, West Michigan Environmental Action Council, Don't Waste Michigan, the Green Party of Van Buren County, the Michigan Land Trustees, and individual members of these organizations (collectively, "Petitioners") have appealed an Atomic Safety and Licensing Board ruling denying their petition to intervene and request for hearing in this license renewal proceeding.¹ Specifically, Petitioners claim that the Board erred in finding inadmissible two proposed contentions, relating to reactor pressure vessel embrittlement and spent fuel storage. Finding no indication that the Board erred, we affirm the Board's ruling.

I. BACKGROUND

Nuclear Management Company, LLC ("NMC") has applied to renew its license to operate the Palisades Nuclear Plant ("Palisades") for a 20-year period starting in 2011. Petitioners jointly filed a petition to intervene and request for hearing, and NMC and the NRC Staff each filed answers to the petition.² Petitioners then filed a "Combined Reply" to the NRC Staff's and NMC's

¹ LBP-06-10, 63 NRC 314 (2006).

² Petitioners' Request for Hearing and Petition To Intervene (Aug. 8, 2005); NRC Staff Answer Opposing Petition To Intervene and Request for Hearing (Sept. 2, 2005); Nuclear Management Company's Answer to the August 8, 2005 Request for Hearing and Petition To Intervene (Sept. 2, 2005).

answers.³ The NRC Staff and NMC immediately objected to the Combined Reply as an improper attempt to supplement Petitioners' original pleading without the Board's approval.⁴ The Board agreed. It refused to consider new claims in the Combined Reply, and found Petitioners' original contentions inadmissible under NRC's contention pleading rules.⁵

Just as the burden was on the Petitioners to raise an admissible contention on which a hearing can be held, it is the Petitioners' burden to raise an issue on appeal that would justify reversing the Board's ruling and remanding the issue for further proceedings. We find that Petitioners have failed in their attempt on appeal, and affirm the Board's rulings.⁶

II. DISCUSSION

Our customary practice is to affirm Board rulings on contention admissibility absent an abuse of discretion or error of law.⁷ Here, we see no basis for disturbing the Board's well-reasoned rejection of Petitioners' contentions. We affirm, for the reasons discussed below and for the reasons articulated by the Board.

A. The Board Properly Rejected Contention 1

1. *Contention 1, as Submitted, Was Vague, Unsupported, and Failed To Address Information in the License Renewal Application*

Petitioners' proposed Contention 1 failed to satisfy our contention pleading requirements that contentions be specific, material and within the scope of the license application, and supported by factual evidence.⁸ This proposed contention argued that the application was "incomplete for failure to address the continuing

³ Petitioners' Combined Reply to NRC Staff and Nuclear Management Company Answers (Sept. 16, 2005) ("Combined Reply").

⁴ NRC Staff Motion To Strike Petitioners' Combined Reply to NRC Staff and NMC Answers to Petition To Intervene and Request for Hearing (Sept. 26, 2005); Nuclear Management Company's Motion To Strike Petitioners' September 16, 2005 Combined Reply to NRC Staff and Nuclear Management Company Answers (Sept. 26, 2005).

⁵ See LBP-06-10, 63 NRC at 336-42.

⁶ Although Petitioners state in their notice of appeal and brief that they are appealing the Board's ruling on Contention 5 (no permanent spent fuel repository), there is no argument on that contention, nor even is there any further mention of it. See Petitioners' Notice of Appeal from ASLB Denial of Hearing, and Supporting Brief (Mar. 17, 2006), at 2 ("Appeal"). Petitioners withdrew the proposed contention in their Combined Reply. See Combined Reply at 55. We conclude that the reference to Contention 5 in the appeal was a typographical error.

⁷ See, e.g., *USEC Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 439-40 (2006).

⁸ See 10 C.F.R. § 2.309(f).

crisis of embrittlement.’’ The entire basis given for the proposed contention was as follows:

The Petitioners allege that the Palisades license renewal application is fundamentally deficient because it does not adequately address technical and safety issues arising out of the embrittlement of the reactor pressure vessel and unresolved Pressure [*sic*] Thermal Shock (‘‘PTS’’) concerns that might reasonably result in the failure of the reactor pressure vessel (‘‘RPV’’). The Palisades nuclear power station is identified as prone to early embrittlement of the reactor pressure vessel, which is a vital safety component. As noted in the opinion of Petitioners’ expert . . . the longer Palisades operates, the more embrittled its RPV becomes, with decreasing safety margins in the event of the initiation of emergency operation procedures. Therefore, a hearing on the public health and safety effects of a prospective additional twenty years of operation, given the present and prospective embrittlement trend of the RPV is imperative to protecting the interests of [Petitioners].⁹

We agree with the Board’s assessment that this statement consists of only general allegations and obvious truisms (i.e., that the longer the reactor pressure vessel is in service, the more vulnerable to embrittlement it becomes). No documentary support was provided for the only argument specific to Palisades: that it is peculiarly vulnerable to embrittlement. As the Board put it, when reading this proposed contention, ‘‘[i]t cannot be ascertained whether the drafters . . . actually even read the Application.’’¹⁰

On appeal, Petitioners do not argue that the above statement, standing alone, constitutes a sufficient contention. Instead, they argue that material in their Combined Reply raises an admissible contention. We agree with the Board that the Combined Reply constituted an untimely attempt to supplement Petitioners’ contention, and find that the Board was correct not to consider it. We turn now to that issue.

2. The Board Properly Declined To Consider New Claims Raised in Petitioners’ Combined Reply

In stark contrast to the brief contention and basis described above, Petitioners’ Combined Reply devoted twenty-two pages of material relating to their contention that Palisades is already or soon will be too embrittled to safely tolerate a thermal shock event.¹¹ Unlike their proposed Contention 1, Petitioners’ Combined Reply included citations to documents and disputed portions of the application.

⁹ Request for Hearing and Petition To Intervene (Aug. 8, 2005) at 4.

¹⁰ LBP-06-10, 63 NRC at 353.

¹¹ See Combined Reply at 2-23.

NRC regulations provide a method for assuring that the reactor vessel of a pressurized water reactor will not become too embrittled to protect against pressurized thermal shock events.¹² Section 50.61, which applies to all pressurized water reactors throughout their operating life, requires the licensee to calculate the effects of neutron flux on the reactor vessel materials, and to project the time at which embrittlement of the reactor vessel will exceed a conservative screening criterion. If the vessel is projected to exceed the screening criterion, the burden is on the licensee to demonstrate that it is safe for the plant to continue to operate.¹³ Specifically, the regulations require the licensee to implement a neutron flux reduction program to avoid exceeding the screening criterion.¹⁴ If no practicable flux reduction can prevent the reactor vessel from exceeding the criterion, the licensee must conduct an analysis to identify how it must modify equipment, systems, and operations to prevent failure of the reactor vessel in a thermal shock event.¹⁵ An additional option is for the licensee to anneal the reactor pressure vessel to restore ductility.¹⁶

NMC's license renewal application described the ongoing flux reduction procedures at Palisades, and acknowledged that it was unlikely that any additional "cost-effective" flux reduction methods would suffice to extend the reactor vessel life.¹⁷ The application states that, within the time frame prescribed by the regulations, it will choose one of the prescribed methods to demonstrate that its reactor vessel is safe in a pressurized thermal shock event.¹⁸

The essence of Petitioners' Combined Reply was that NMC's calculation of the date that its reactor pressure vessel will exceed the screening criteria is unreliable,¹⁹ and that the method NMC will use to handle embrittlement should be subject to a hearing to select the safest option, not merely the least expensive option.²⁰ These arguments, however, are not even suggested by Petitioners' proposed Contention 1 as initially pled.

¹² A pressurized thermal shock event is "an event or transient in pressurized water reactors (PWRs) causing severe overcooling (thermal shock) concurrent with or followed by significant pressure in the reactor vessel." 10 C.F.R. § 50.61(a)(2).

¹³ 10 C.F.R. § 50.61(b)(4)-(6).

¹⁴ 10 C.F.R. § 50.61(b)(3).

¹⁵ 10 C.F.R. § 50.61(b)(4).

¹⁶ See 10 C.F.R. § 50.61(b)(7).

¹⁷ See Palisades Nuclear Plant, Application for Renewed Operating License, ADAMS Accession No. ML050940446, at 4-10, 4-13 to 4-15 (Mar. 22, 2005).

¹⁸ *Id.* at 4-10.

¹⁹ See, e.g., Combined Reply at 3-4, 10-15.

²⁰ See, e.g., *id.* at 5-9.

It is well established in NRC proceedings that a reply cannot expand the scope of the arguments set forth in the original hearing request.²¹ Replies must focus narrowly on the legal or factual arguments first presented in the original petition or raised in the answers to it. New bases for a contention cannot be introduced in a reply brief, or any other time after the date the original contentions are due, unless the petitioner meets the late-filing criteria set forth in 10 C.F.R. § 2.309(c), (f)(2). While a petitioner need not introduce at the contention phase every document on which it will rely in a hearing, if the contention as originally pled did not cite adequate documentary support, a petitioner cannot remediate the deficiency by introducing in the reply documents that were available to it during the time frame for initially filing contentions. Allowing new claims in a reply not only would defeat the contention-filing deadline, but would unfairly deprive other participants of an opportunity to rebut the new claims.

Here, Petitioners never addressed the late-filing criteria before the Board, and do not assert in their appeal that the claims in their Combined Reply meet these criteria. In fact, the Board examined the material and noted that, because the supporting documentation was all available prior to the contention deadline, Petitioners would likely not be able to meet the late-filing test.²² We agree with the Board.

By stressing untimeliness, we by no means suggest that the new information in Petitioners' Combined Reply amounts to an admissible contention. On the contrary, the NRC Staff and NMC have pointed to other possible shortcomings in that pleading. For example, the Combined Reply appears to ignore vital information in the application, such as the fact that NMC has already implemented neutron flux reduction procedures at Palisades. In addition, to the extent that Petitioners suggest that NMC must *immediately* commit to a course of action (neutron flux reduction, modifying equipment and systems under section 50.61(b)(4), or annealing) to address neutron flux-induced embrittlement, the contention constitutes an impermissible attack on Commission regulations. But because Petitioners' original contention was inadequate on its face, and the Combined Reply unjustifiably late, we need not rule on the extent to which section 50.61 narrows embrittlement challenges that may properly be raised in a license renewal proceeding.

3. Petitioners' Claims Concerning Their Expert Witness Are Irrelevant

Petitioners also object to the Board's decision on the basis that it erroneously discounted the contribution of their proffered expert. In drafting their contentions,

²¹ See, e.g., *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223 (2004), *reconsideration denied*, CLI-04-35, 60 NRC 619 (2004). *Accord American Centrifuge*, CLI-06-9, 63 NRC at 439.

²² See LBP-06-10, 63 NRC at 351.

Petitioners consulted with a former NRC employee, Demetrios Basdekas, about conditions at Palisades and issues of embrittlement. Mr. Basdekas is the expert to whom their contention and supporting basis refers.

In December 2005, the NRC attorney representing the Staff in this matter received a call from Mr. Basdekas saying that he would not testify for Petitioners at a hearing. This led to charges among the litigants that Petitioners had misrepresented Mr. Basdekas as their expert, and accusations of attorney misconduct.²³

Petitioners' appeal claims that the Board "denigrated" the value of Mr. Basdekas by stating in its ruling that Mr. Basdekas assisted Petitioners only in drafting the contention and would not be available to testify at a hearing. This claim provides no basis for appeal because it is now irrelevant whether Mr. Basdekas was or was not the Petitioners' expert, whether he withdrew as their expert, or why he did so. The Board found, correctly, that the statements attributed to him in Contention 1 were too general to support a contention.²⁴ The Board's ruling did not rest on a determination of Mr. Basdekas's status as Petitioners' expert. Furthermore, even if the Board misjudged the situation (and we see no evidence that it did), the error is harmless and immaterial.

B. The Board Correctly Found Contention 3 (Spent Fuel Storage Capacity) To Be Outside the Scope of the Proceeding

The Board properly rejected proposed Contention 3 because it sought to raise an issue outside the scope of a license renewal proceeding. Contention 3 charged that NMC has no place to store the spent fuel that will accumulate over the license renewal period because, Petitioners claim, the two dry cask storage pads currently in use at Palisades do not comply with the NRC's regulations. In their appeal, Petitioners argue that this constitutes an ongoing violation. The Board was correct in finding this claim to be outside the scope of this proceeding. First, the dry cask storage facility, or independent spent fuel storage installation (ISFSI), is licensed separately from the reactor.²⁵ The current proceeding concerns the renewal of the reactor operating license pursuant to 10 C.F.R. Parts 51 and 54, and not the ISFSI, which is licensed pursuant to 10 C.F.R. Part 72. Issues involving the ISFSI are, quite simply, separate licensing matters.²⁶

Second, the focus of a license renewal proceeding is on the detrimental effects of aging on reactor and auxiliary systems resulting from operation beyond the initial license term. "Accordingly, Part 54 requires renewal applicants to

²³ See LBP-06-10, 63 NRC at 330-36, *see also id.* at 369 (Additional Statement of Judge Young).

²⁴ See LBP-06-10, 63 NRC at 335, 351-52.

²⁵ *See id.*

²⁶ See *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 344 n.4 (1999).

demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation.”²⁷ Petitioners argue on appeal that the putative storage pad defects cannot be disconnected from the proposed license renewal because additional spent fuel will accumulate over the license renewal period.²⁸ Although Petitioners attempt to recast their argument as a license renewal issue, it falls beyond the limited scope of this proceeding.²⁹

For these reasons, as well as those articulated by the Board, Contention 3 falls outside the scope of this proceeding, and Petitioners have not shown that the Board erred in so holding.³⁰

III. CONCLUSION

For the foregoing reasons, the Board’s decision in LBP-06-10 is *affirmed*.³¹

²⁷ See, e.g., *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 8 (2001).

²⁸ See Appeal at 11.

²⁹ The radiological impacts of onsite spent fuel during the renewal period are not subject to litigation in license renewal adjudicatory proceedings under the National Environmental Policy Act of 1969. As discussed by the Board below, this issue constitutes a “Category 1” issue. See LBP-06-10, 63 NRC at 345. Category 1 issues are those issues that the Commission has categorized and assessed generically because the environmental effects of those issues are essentially similar for all plants. These findings are codified in NRC regulations. See 10 C.F.R. Part 51, Subpart A, App. B. As such, a license renewal applicant may, in its environmental report, “refer to and adopt the generic environmental impact findings found in Table 1, Appendix B, for all Category 1 issues.” These generic determinations, including the determination regarding onsite waste storage, “preclude the Petitioners from attempting to introduce such waste issues into this adjudication.” *Oconee*, CLI-99-11, 49 NRC at 343.

³⁰ Petitioners have asked that, in the alternative to litigating their claim relating to the dry storage pads as part of this license renewal proceeding, the NRC consider their claim a request for enforcement action pursuant to 10 C.F.R. §§ 2.202 and 2.206. We note that this matter is, in fact, currently under consideration by the NRC Staff as a possible section 2.206 petition. See “May 2006 Report on the Status of Public Petitions Under Title 10 of the Code of Federal Regulations, Section 2.206,” June 8, 2006 (ADAMS Accession No. ML061560109).

³¹ Yesterday (June 22, 2006), Petitioners, as well as other organizations, filed a pleading entitled “Notice of Pertinent New Case Law Affecting Proceeding; Request for Redraft of EIS, Additional Comment Period, and for New Period for Receipt of Contentions on Terrorism.” Petitioners’ “Notice” points to a recent decision from the United States Court of Appeals for the Ninth Circuit, *San Luis Obispo Mothers for Peace v. NRC*, No. 03-74628 (9th Cir. June 2, 2006). The Ninth Circuit decision deals with the question whether the NRC must consider the environmental effects of potential terrorist attacks. As neither of the contentions we discuss in today’s decision concerns terrorism issues, we do not consider Petitioners’ “Notice.” We will address Petitioners’ Notice at a later time.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland
this 23d day of June 2006.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

E. Roy Hawkens, Chairman
Dr. Paul B. Abramson
Dr. Anthony J. Baratta

In the Matter of

Docket No. 50-0219-LR
(ASLBP No. 06-844-01-LR)

AMERGEN ENERGY COMPANY, LLC
(Oyster Creek Nuclear Generating
Station)

June 6, 2006

CURRENT LICENSING BASIS: DOCKETED COMMITMENTS

Licensee's written commitments that are "docketed and in effect" constitute part of the "current licensing basis," which is the "set of NRC requirements applicable to a specific plant" (10 C.F.R. § 54.3(a)). A licensee must "comply with its licensing basis unless the licensing basis is properly changed or the licensee is formally excused by the NRC from compliance" (Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,951 (Dec. 13, 1991)).

RULES OF PRACTICE: CONTENTIONS (SCOPE; CONTENTIONS OF OMISSION)

There is a difference between contentions that, on the one hand, allege that a license application suffers from an improper omission, and contentions that, on the other hand, raise a specific substantive challenge to how particular information or issues have been discussed in a license application. In the former situation, "[w]here a contention alleges the omission of particular information or an issue from an application, and the information is later supplied by the applicant . . . ,

the contention is moot” (*Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 383 (2002)).

RULES OF PRACTICE: CONTENTIONS (CONTENTIONS OF OMISSION)

Generally, the plain language of a contention will reveal whether the contention is (1) a claim of omission, (2) a specific substantive challenge to an application, or (3) a combination of both. In some instances, “it may be necessary to examine the language of the bases to determine the contention’s scope” (*McGuire/Catawba*, CLI-02-28, 56 NRC at 383 n.45).

RULES OF PRACTICE: CONTENTIONS (CONTENTIONS OF OMISSION; SCOPE)

When a contention of omission has been rendered moot, the intervenor — if it wishes to raise specific challenges regarding the new information — may timely file a new contention that addresses the admissibility factors in 10 C.F.R. § 2.309(f)(1). Otherwise an “original contention alleging simply a failure to address a subject could readily be transformed — without basis or support — into a broad series of disparate new claims. This approach effectively would circumvent NRC contention-pleading standards and defeat the contention rule’s purposes” (*McGuire/Catawba*, CLI-02-28, 56 NRC at 383).

MEMORANDUM AND ORDER
(Contention of Omission Is Moot, and Motions Concerning
Mandatory Disclosure Are Moot)

I. INTRODUCTION

On February 27, 2006, this Board granted a Petition To Intervene submitted by six organizations¹ — hereinafter referred to collectively as NIRS — opposing an application by AmerGen Energy Company, LLC (“AmerGen”) to renew its operating license for the Oyster Creek Nuclear Generating Station (“Oyster Creek”) for 20 years beyond the current expiration date of April 9, 2009.

¹The six organizations are: Nuclear Information and Resource Service (NIRS); Jersey Shore Nuclear Watch, Inc.; Grandmothers, Mothers and More for Energy Safety; New Jersey Public Interest Research Group; New Jersey Sierra Club; and New Jersey Environmental Federation.

See LBP-06-7, 63 NRC 188 (2006). This Board admitted one contention for litigation, namely, NIRS's challenge to AmerGen's aging management program for measuring corrosion in the sand bed region of Oyster Creek's drywell liner to the extent that the program "fails to include periodic [ultrasonic testing (UT)] measurements in that region throughout the period of extended operation" (LBP-06-7, 63 NRC at 217).

On April 25, 2006, AmerGen filed a motion seeking to: (1) dismiss NIRS's contention as moot on the basis of AmerGen's newly docketed formal commitment to conduct periodic UT measurements in the sand bed region of the drywell liner throughout the period of extended operation; and (2) suspend further mandatory disclosures pending this Board's resolution of the dismissal request. *See* AmerGen's Motions To Dismiss Drywell Contention as Moot and To Suspend Mandatory Disclosures (Apr. 25, 2006) [hereinafter AmerGen Motion To Dismiss].²

Shortly thereafter, on May 5, 2006, NIRS filed a motion asking this Board to: (1) compel AmerGen to disclose all records relating to corrosion in the region above the sand bed region; and (2) grant permission for NIRS to file (if necessary) subsequent timely motions to compel after AmerGen makes its required disclosures. *See* [NIRS] Motion To Compel Further Mandatory Disclosures (May 5, 2006) [hereinafter NIRS Motion To Compel Disclosures].³

For the reasons discussed below, we conclude that NIRS's contention is moot and subject to dismissal. We will refrain, however, from issuing an order of dismissal for 20 days from the date of this Memorandum and Order, thus allowing NIRS the opportunity to seek leave to file a new contention in this proceeding. Our conclusion that NIRS's contention (which is the sole contention in this proceeding) is moot terminates the mandatory disclosure process for that contention, thus rendering moot the parties' remaining motions pertaining to mandatory disclosures.

II. BACKGROUND

AmerGen's License Renewal Application (LRA) for Oyster Creek, as origi-

² NIRS opposed AmerGen's requests. *See* [NIRS] Brief in Opposition to AmerGen's Motion To Dismiss and To Suspend Mandatory Disclosures (May 5, 2006) [hereinafter NIRS Opposition to AmerGen Motion To Dismiss]. The NRC Staff supported AmerGen's requests. *See* NRC Staff's Response to AmerGen's Motion To Dismiss Drywell Contention as Moot (May 5, 2006) [hereinafter NRC Staff Response to AmerGen Motion To Dismiss].

³ AmerGen opposed NIRS's requests. *See* AmerGen Answer Opposing [NIRS's] Motion To Compel Further Mandatory Disclosures (May 16, 2006) [hereinafter AmerGen Opposition to NIRS Motion To Compel Disclosures]. The NRC Staff declined to take a position on NIRS's requests. *See* Letter from Mitzi A. Young, Counsel for NRC Staff, to Administrative Judges (May 16, 2006).

nally submitted, contained no provision for future UT measurements in the sand bed region of the drywell liner. The LRA omitted such measurements because AmerGen had concluded that corrosion in that region had been arrested, and that periodic visual inspections — which AmerGen planned to perform throughout the 20-year renewal period — would be adequate to identify the effects of age-related corrosion (LRA at 3.5-19 to -21; AmerGen Motion To Dismiss at 2).

In November 2005, NIRS submitted a Petition To Intervene in which it argued that periodic visual inspections would not be adequate to monitor the extent of corrosion in the sand bed region of the drywell liner. NIRS contended, *inter alia*, that for AmerGen to ensure an adequate safety margin in the thickness of the drywell liner in the sand bed region, it must conduct periodic UT measurements in that region throughout the renewal period (*see* LBP-06-7, 63 NRC at 211).⁴

In February 2006, this Board concluded that NIRS proffered an admissible contention. Because the contention, as originally advanced by NIRS, was overbroad, this Board reformulated it to clarify the precise scope (*supra* note 4). NIRS's contention — as admitted by this Board — alleges that AmerGen's LRA is deficient because it improperly omits "periodic UT measurements in [the sand bed] region throughout the extended period of operation" (LBP-06-7, 63 NRC at 217). The contention reads as follows (*ibid.*):

AmerGen's [LRA] fails to establish an adequate aging management plan for the sand bed region of the drywell liner, because its corrosion management program fails to include periodic UT measurements in that region throughout the period of extended operation and, thus, will not enable AmerGen to determine the amount of corrosion in that region and thereby maintain the safety margins during the term of the extended license.

Meanwhile, in December 2005 — while NIRS's Petition To Intervene was pending before this Board — AmerGen docketed a commitment to perform UT measurements in the sand bed region prior to the period of extended operation under the proposed renewed license (LBP-06-7, 63 NRC at 216). Additionally, on April 4, 2006 — after this Board had granted NIRS's Petition To Intervene — AmerGen docketed a commitment to perform periodic UT measurements in the sand bed region of the drywell liner throughout the period of extended operation. Specifically, AmerGen committed to perform UT measurements in the sand bed region every 10 years following the measurements taken prior to the renewal

⁴ NIRS raised a similar contention with respect to the region of the drywell liner above the sand bed region, known as the upper region. The Board declined to admit that contention, because AmerGen's aging management program included periodic UT measurements of the upper region throughout the renewal period. *See* LBP-06-7, 63 NRC at 216 n.27.

period. AmerGen committed to incorporate the periodic UT program into its LRA. *See* Letter from Michael P. Gallagher, AmerGen, to NRC (Apr. 4, 2006).⁵

Pending before us is AmerGen's Motion of April 25, 2006, which argues that its commitment "to perform a set of UT examinations in the sand bed region prior to the period of extended operation and then every 10 years thereafter during the period of extended operation [renders] moot [NIRS's] contention as admitted by the Board" (AmerGen Motion To Dismiss at 3). AmerGen therefore requests that we dismiss NIRS's contention (*ibid.*).

The NRC Staff supports AmerGen's request, but NIRS opposes it (NRC Staff Response to AmerGen Motion To Dismiss at 5; NIRS Opposition to AmerGen Motion To Dismiss at 10).⁶

III. ANALYSIS

A. NIRS's Contention, Which Is a Contention of Omission, Has Been Rendered Moot by AmerGen's Commitment To Perform Periodic UT Measurements During the Renewal Period

AmerGen and the NRC Staff characterize NIRS's contention as a contention of omission that attacks AmerGen's aging management program for failing to include periodic UT measurements in the sand bed region of the drywell liner throughout the renewal period. This alleged deficiency has been cured, they assert, by AmerGen's commitment to perform periodic UT measurements in that region throughout the renewal period. Accordingly, AmerGen and the NRC Staff aver that NIRS's contention is moot and should be dismissed. *See* AmerGen Motion To Dismiss at 3-6; NRC Staff Response to AmerGen Motion To Dismiss at 3-5.

In response, NIRS argues that AmerGen's commitment to perform "two or three rounds" of UT measurements in the sand bed region does not moot the contention (NIRS Opposition to AmerGen Motion To Dismiss at 1). To render the contention moot, asserts NIRS, "AmerGen would have to demonstrate that

⁵ A "licensee's written commitments . . . that are docketed and in effect" constitute part of the "current licensing basis," which is the "set of NRC requirements applicable to a specific plant" (10 C.F.R. § 54.3(a)). A licensee must "comply with its licensing basis unless the licensing basis is properly changed or the licensee is formally excused by the NRC from compliance" (Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,951 (Dec. 13, 1991)).

⁶ As mentioned *supra* Part I, the following motions are also pending before this Board: (1) AmerGen's motion that we suspend further mandatory disclosures pending resolution of its dismissal motion (AmerGen Motion To Dismiss at 8-10); and (2) NIRS's motion that we compel AmerGen to provide additional disclosures (NIRS Motion To Compel Disclosures at 5), and that we allow NIRS (if necessary) to file future motions to compel (*ibid.*).

its proposed measurement regime will allow safety margins to be maintained throughout the entire relicensing period” (*id.* at 3).

NIRS’s argument misconceives the nature of the admitted contention. There is a difference between contentions that, on the one hand, allege that a license application suffers from an improper omission, and contentions that, on the other hand, raise a specific substantive challenge to how particular information or issues have been discussed in a license application. In the former situation, “[w]here a contention alleges the omission of particular information or an issue from an application, and the information is later supplied by the applicant . . . , the contention is moot” (*Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 383 (2002)).⁷

Generally, the plain language of a contention will reveal whether the contention is (1) a claim of omission, (2) a specific substantive challenge to an application, or (3) a combination of both. In some instances, “it may be necessary to examine the language of the bases to determine the contention’s scope” (*McGuire/Catawba*, CLI-02-28, 56 NRC at 383 n.45) (internal quotation marks omitted); *accord Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 (1988); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-23, 54 NRC 163, 171 (2001).

In the instant case, we specifically interpreted NIRS’s contention to be a claim of omission, and we reformulated it according to that understanding. The contention’s plain language thus challenges AmerGen’s aging management plan for the sand bed region of the drywell liner “*because its corrosion management program fails to include periodic UT measurements in that region throughout the period of extended operation*” (LBP-06-7, 63 NRC at 217) (emphasis added).⁸

That NIRS’s contention is one of omission is confirmed by its underlying basis which, as we stated in our admissibility analysis, was grounded on the premise that —

⁷If a contention includes both a claim of omission and a specific substantive challenge, an applicant’s curing of the omission will not necessarily render the entire contention moot. For example, here, NIRS conceivably could have proffered a contention that included (1) an “omission” challenge asserting that AmerGen must take periodic UT measurements in the sand bed region, and (2) a “substantive” challenge asserting — based on particularized supporting information — that AmerGen’s UT measurements must be performed at a specified frequency. Had NIRS proffered (and had we admitted) such a contention, AmerGen’s commitment to perform periodic UT measurements would have mooted the “omission” component of the contention, but not necessarily the “substantive” component (unless AmerGen committed to perform UT measurements consistent with the contention’s prescribed frequency).

⁸The thrust of the reformulated contention tracked that of NIRS’s overbroad contention (*supra* note 4), which asserted that “UT measurements [must] be taken periodically for the life of the reactor . . . to confirm that the actual corrosion measurements are as projected” (LBP-06-7, 63 NRC at 211).

given the extent of corrosion damage in [the sand bed] region and the potential for continuing corrosion, coupled with the licensee's prior acknowledgment of the need to take UT measurements for the life of the plant to assure public safety — periodic UT measurements must be taken in the sand bed region during the renewal period.

LBP-06-7, 63 NRC at 218 n.29. In other words, according to NIRS, AmerGen's failure to include periodic UT measurements in the sand bed region during the renewal period was a fatal flaw of omission.⁹

Finally, if further evidence were needed to support the conclusion that NIRS's contention is one of omission, it may be found in our discussion rejecting NIRS's argument that its contention was not limited to the sand bed region, but extended as well to the upper region of the drywell liner (*see supra* note 4). We stated (LBP-06-7, 63 NRC at 216-17 n.27):

We limit NIRS's contention to the sand bed region because, contrary to NIRS's assertion, AmerGen is performing, and will continue to perform during the renewal period, UT measurements at critical locations in the upper region of the drywell liner. . . . For this reason, NIRS's contention — to the extent it includes the upper region of the drywell liner — lacks an adequate basis

The foregoing statement makes clear that a fundamental distinction between the upper region of the drywell liner (which was excluded from the contention) and the sand bed region (which was included in the admitted contention) was the fact that AmerGen's aging management program included periodic UT measurements in the upper region throughout the renewal period, but failed to include them in the sand bed region. That omission — which was the sole foundation for our conclusion that NIRS had proffered an admissible contention — has now been cured.

Specifically, in response to this Board's admission of NIRS's contention of omission — i.e., NIRS's complaint that AmerGen's LRA failed to include periodic UT measurements of the sand bed region throughout the renewal

⁹This Board's admissibility analysis shows decisively that the gravamen of NIRS's claim is that AmerGen's aging management program improperly fails to include periodic UT measurements in the sand bed region throughout the period of extended operation. *See, e.g.*, LBP-06-7, 63 NRC at 219 ("the issue of . . . the necessity *vel non* of periodic UT measurements to maintain the safety margins during the term of the extended license, is material in this license renewal proceeding"); *id.* at 220 (NIRS's expert opines that "it is 'absolutely essential' that the integrity of the [sand bed region of the drywell liner] be directly assessed by periodic UT measurements"); *id.* at 221 ("we find that a genuine dispute exists regarding whether AmerGen's aging management program for the heavily corroded sand bed region — which does *not* include periodic UT measurements — will enable AmerGen to determine the extent and continuation *vel non* of corrosion"); *ibid.* ("NIRS contends that periodic UT measurements in this heavily corroded and epoxy-covered region are essential *throughout Oyster Creek's extended period of operation*").

period — AmerGen has committed to perform periodic UT measurements in the sand bed region during the renewal period pursuant to a 10-year cycle (AmerGen Motion To Dismiss at 2-3). Because AmerGen has supplied a plan to provide the periodic UT measurements that NIRS's contention claimed were improperly omitted from AmerGen's LRA, NIRS's claim of omission is moot.¹⁰

Where, as here, a contention of omission that is the sole contention in the proceeding has been rendered moot and no other motions remain pending, an order dismissing the contention ordinarily would terminate the proceeding. This Board declines to take that step at this juncture. The Commission has instructed (*McGuire/Catawba*, CLI-02-28, 56 NRC at 383) that when a contention of omission has been rendered moot, the intervenor — if it wishes to raise specific challenges regarding the new information — may timely file a new contention that addresses the admissibility factors in 10 C.F.R. § 2.309(f)(1).¹¹

Accordingly, to give NIRS the opportunity to file a new contention in this proceeding raising a specific substantive challenge to AmerGen's new periodic UT program for the sand bed region, we will forbear from issuing an order of dismissal for 20 days from the date of this Memorandum and Order. See *Energy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-05-24, 62 NRC 429, 433 (2005); cf. 10 C.F.R. § 2.319 (presiding officer has "all the powers necessary" to promote efficiency and ensure a fair hearing process). If NIRS seeks leave to file a new contention *within 20 days of the date of this Memorandum and Order* (i.e., by June 26, 2006), we will deem the filing to be timely for purposes of 10 C.F.R. § 2.309(f)(2)(iii). Any such filing — the substance of which must be limited to the sand bed region, and which must be limited to AmerGen's new UT program for that region as reflected in its docketed commitment of April 4, 2006 — shall address the remaining factors in 10 C.F.R.

¹⁰ AmerGen makes the alternative argument that NIRS's contention is moot to the extent that it is construed as requiring — in general, nonquantified terms — an "adequate number of confirmatory UT measurements," because the "docketed commitments fully and satisfactorily address the concept of an 'adequate number' of UT measurements" (AmerGen Motion To Dismiss at 7). *But cf.* NRC Staff Response to AmerGen Motion To Dismiss at 5 (Staff states it "has yet to determine the adequacy of [AmerGen's] commitments [to perform UT measurements in the sand bed region] as part of the applicant's corrosion management program"). Because we resolve the mootness issue in AmerGen's favor on a different ground, we need not, and do not, address AmerGen's alternative argument.

¹¹ The Commission in *McGuire/Catawba* explained that unless it "require[d] an amended or new contention in 'omission' situations, an original contention alleging simply a failure to address a subject could readily be transformed — without basis or support — into a broad series of disparate new claims. This approach effectively would circumvent NRC contention-pleading standards and defeat the contention rule's purposes" (CLI-02-28, 56 NRC at 383).

§ 2.309(f)(2), as well as the admissibility factors in 10 C.F.R. § 2.309(f)(1). *See Vermont Yankee*, LBP-05-24, 62 NRC at 433.¹²

If NIRS elects to file a new contention, AmerGen and the NRC Staff may file an answer consistent with 10 C.F.R. § 2.309(h)(1). NIRS may file a reply to any answer consistent with 10 C.F.R. § 2.309(h)(2).

B. The Motions Concerning the Mandatory Disclosure Process for the Moot Contention Are Moot

Because the sole contention in this proceeding is moot, the mandatory disclosure process for that contention (10 C.F.R. §§ 2.336 and 2.1203) is terminated. The following requests pertaining to mandatory disclosures are thus moot: (1) AmerGen's motion to suspend mandatory disclosures (AmerGen Motion To Dismiss at 8-10); (2) NIRS's motion to compel further mandatory disclosures (NIRS Motion To Compel Disclosures at 6); and (3) NIRS's motion seeking permission to file (if necessary) subsequent timely motions to compel (*ibid.*).

IV. CONCLUSION

For the foregoing reasons, we *conclude that NIRS's contention is moot*. However, *we will refrain from issuing an order of dismissal for 20 days from the date of this Memorandum and Order, thus allowing NIRS the opportunity to seek leave to file a new contention* in this proceeding if it wishes to raise a specific substantive challenge regarding AmerGen's periodic UT program for the sand bed region. Our conclusion that NIRS's contention is moot terminates the mandatory disclosure process for that contention, and *the motions pending before us pertaining to mandatory disclosures are thus moot*.

¹²The above procedure, which deems a new contention filed within 20 days to be timely for purposes of 10 C.F.R. § 2.309(f)(2)(iii), means that — if NIRS satisfies the remaining factors in section 2.309(f)(2) — the parties need not address the requirements under 10 C.F.R. § 2.309(c), which apply to “nontimely filings.” *See Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 572-74 & n.14 (2006).

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD¹³

E. Roy Hawkens, Chairman
ADMINISTRATIVE JUDGE

Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

Rockville, Maryland
June 6, 2006

¹³ Copies of this Memorandum and Order were sent this date by Internet e-mail to counsel for: (1) AmerGen; (2) New Jersey; (3) NIRS; and (4) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

G. Paul Bollwerk, III, Chairman
Dr. Paul B. Abramson
Dr. Charles N. Kelber

In the Matter of

Docket No. 70-3103-ML
(ASLBP No. 04-826-01-ML)

LOUISIANA ENERGY SERVICES, L.P.
(National Enrichment Facility)

June 23, 2006

In this 10 C.F.R. Part 70 proceeding regarding the application of Louisiana Energy Services, L.P. (LES), for authorization to possess and use source, byproduct, and special nuclear material to enrich natural uranium by the gas centrifuge process at its planned National Enrichment Facility (NEF) to be built near Eunice, New Mexico, the Licensing Board sets forth its findings on certain uncontested safety/technical and environmental matters relative to the LES application, and authorizes the NRC Staff to issue a Part 70 license for the NEF, effective immediately.

ATOMIC ENERGY ACT: SECTION 193(b)(1)

MANDATORY HEARING: ORIGIN OF REQUIREMENT (URANIUM ENRICHMENT FACILITY)

The source of the mandatory hearing requirement for uranium enrichment facilities is section 193(b)(1) of the Atomic Energy Act (AEA), 42 U.S.C. § 2243(b)(1), which provides, in relevant part, that “[t]he Commission shall conduct a single hearing on the record with regard to the licensing of the construction and operation of a uranium enrichment facility” Sections

70.23a and 70.31(e) of Title 10 of the *Code of Federal Regulations* implement this mandate, declaring that before a uranium enrichment facility can be licensed, a hearing is required to be held on that license application.

**MANDATORY HEARING: MATTERS FOR CONSIDERATION
(URANIUM ENRICHMENT FACILITY)**

The matters of fact and law to be considered in a proceeding on an application for a license to construct and operate a uranium enrichment facility are whether the application satisfies the applicable standards in 10 C.F.R. §§ 30.33, 40.32, and 70.23, and whether the requirements of 10 C.F.R. Part 51 have been met. *See* CLI-04-3, 59 NRC 10, 13 (2004).

**LICENSING BOARD(S): SCOPE OF REVIEW (MANDATORY
HEARING SAFETY AND ENVIRONMENTAL FINDINGS)**

**MANDATORY HEARING: SCOPE OF REVIEW (UNCONTESTED
MATTERS)**

**RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING
(MANDATORY HEARING)**

If a proceeding on an application for a 10 C.F.R. Part 70 license is not a contested proceeding, as defined by 10 C.F.R. § 2.4, the licensing board will determine the following, without conducting a de novo evaluation of the application: (1) whether the application and record of the proceeding contain sufficient information and whether the Staff's review of the application has been adequate to support findings to be made by the Director of the Office of Nuclear Materials Safety and Safeguards (NMSS), with respect to the applicable standards in 10 C.F.R. §§ 30.33, 40.32, and 70.23; and (2) whether the review conducted by the Staff pursuant to 10 C.F.R. Part 51 has been adequate. *See* CLI-04-3, 59 NRC at 13; *see also* 10 C.F.R. § 2.104(b)(1)(i)-(iv) and (b)(2)(i).

**LICENSING BOARD(S): RESPONSIBILITIES (“BASELINE” NEPA
FINDINGS)**

MANDATORY HEARING: NEPA (“BASELINE” FINDINGS)

NEPA: MANDATORY HEARING (“BASELINE” FINDINGS)

**RULES OF PRACTICE: MANDATORY HEARING (“BASELINE”
NEPA FINDINGS)**

Regardless of whether a proceeding on an application for a 10 C.F.R. Part 70

license is contested or uncontested, the licensing board will, in its initial decision, in accordance with Subpart A of 10 C.F.R. Part 51: (1) determine whether the requirements of sections 102(2)(A), (C), and (E) of the National Environmental Policy Act (NEPA) and Subpart A of Part 51 have been complied with in the proceeding; (2) independently consider the final balance among conflicting factors contained in the record of proceeding with a view to determining the appropriate action to be taken; and (3) determine whether a license should be issued, denied, or conditioned to protect the environment. *See* CLI-04-3, 59 NRC at 13; *see also* 10 C.F.R. § 2.104(b)(2)(ii).

LICENSING BOARD(S): RESPONSIBILITIES (MANDATORY HEARING SAFETY AND ENVIRONMENTAL FINDINGS)

MANDATORY HEARING: SCOPE OF REVIEW (CONTESTED AND UNCONTESTED PORTIONS OF PROCEEDING)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (CONTESTED PROCEEDING; MANDATORY HEARING)

If the proceeding on such an application becomes a contested proceeding, the licensing board shall make findings of fact and conclusions of law on admitted contentions. Moreover, with respect to matters relating to the applicable standards of 10 C.F.R. §§ 30.33, 40.32, and 70.23, and the adequacy of the Staff's review pursuant to Part 51, but not covered by admitted contentions, the Board will determine, without conducting a de novo evaluation of the application, whether: (1) the application and record of the proceeding contain sufficient information and whether the Staff's review of the application has been adequate to support findings to be made by the Director of NMSS with respect to the applicable standards in sections 30.33, 40.32, and 70.23; and (2) the review conducted by the Staff pursuant to Part 51 has been adequate. *See* CLI-04-3, 59 NRC at 13; *see also* 10 C.F.R. § 2.104(b)(1)(i)-(iv) and (b)(2)(i).

MANDATORY HEARING: SCOPE OF REVIEW (IMPACT OF ADMISSION OF CONTESTED ISSUE ON NEED TO CONDUCT MANDATORY HEARING)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (IMPACT OF ADMISSION OF CONTESTED ISSUE ON NEED TO CONDUCT MANDATORY HEARING)

The Commission has provided interpretative guidance for licensing boards conducting mandatory hearings. *See* CLI-05-17, 62 NRC 5 (2005). Addressing the question of whether proceedings should be treated in their entirety as "contested"

or “uncontested,” as the plain language of agency regulations seemed to imply, the Commission held that “the contested and uncontested designations apply issue-by-issue, and not to proceedings-at-large.” *Id.* at 34. The net effect of this ruling is to eliminate the possibility that admission of a single, relatively minor contention would negate the need to conduct a separate mandatory hearing.

LICENSING BOARD(S): SCOPE OF REVIEW (MANDATORY HEARING DOES NOT INCLUDE DE NOVO REVIEW OF STAFF SAFETY FINDINGS)

MANDATORY HEARING: SCOPE OF REVIEW (DOES NOT INCLUDE DE NOVO REVIEW OF STAFF SAFETY FINDINGS)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (MANDATORY HEARING DOES NOT INCLUDE DE NOVO REVIEW OF STAFF SAFETY FINDINGS)

In accord with 10 C.F.R. § 2.104(b)(2)(i), in a proceeding on an application for a license to construct and operate a uranium enrichment facility, a licensing board is to determine, with respect to safety matters, “whether the application and record of the proceeding contain sufficient information and whether the NRC Staff’s review of the application has been adequate to support findings to be made . . . with respect to [10 C.F.R. §§ 30.33, 40.32, and 70.23],” and that these determinations are to be made “without conducting a de novo evaluation of the application.” CLI-04-3, 59 NRC at 12. Because a true de novo review would involve *complete* repetition of the Staff’s work, this stated limitation does little to clarify the scope of review contemplated by the charge to determine whether the record supports an affirmative Staff finding.

LICENSING BOARD(S): SCOPE OF REVIEW (MANDATORY HEARING REVIEW OF STAFF FINDINGS)

MANDATORY HEARING: SCOPE OF REVIEW (LICENSING BOARD REVIEW OF STAFF FINDINGS)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (LICENSING BOARD MANDATORY HEARING REVIEW OF STAFF FINDINGS)

The Commission has clearly delineated the respective roles of a licensing board and the Staff, advising that a board’s task is “to constitute a check on the understanding of the staff.” *See* CLI-05-17, 62 NRC at 40 (internal quotation marks and footnote omitted). The Commission cautioned that “truly independent

review' . . . does not mean that multiple reviews of the same *uncontested* issues — first by the NRC Staff, then by the [Advisory Committee on Reactor Safeguards], and finally by a licensing board — would be necessary to serve this purpose [of constituting a check on the understanding of the Staff],” *id.*, and summarized by noting that “boards should conduct a simple ‘sufficiency’ review of uncontested issues . . . ,” *id.* at 39. Nonetheless, to ensure that this guidance was not mistaken as Commission permission for licensing boards to engage in a relatively cursory effort, speaking again to uncontested portions of the proceeding, the Commission defined precisely its view of a licensing board’s task, stating “when considering safety and environmental matters not subject to the adversarial process . . . boards should inquire whether the NRC Staff performed an adequate review and made findings with reasonable support in logic and fact.” *Id.* (emphasis added). Thus, the scope of a licensing board’s review has been clearly defined; i.e., it must identify, investigate, and comprehend the facts underlying, and the logic of, the Staff’s central legal, technical, and environmental determinations to develop the basis for the licensing board’s ultimate findings regarding the adequacy of the record and the sufficiency of the Staff’s review.

LICENSING BOARD(S): SCOPE OF REVIEW (MANDATORY HEARING REVIEW OF STAFF FINDINGS)

MANDATORY HEARING: SCOPE OF REVIEW (LICENSING BOARD REVIEW OF STAFF FINDINGS)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (LICENSING BOARD MANDATORY HEARING REVIEW OF STAFF FINDINGS)

In further clarifying how a licensing board is to approach its review task, the Commission noted that “as a general matter licensing boards should review contested and uncontested issues differently, giving the NRC Staff considerably more deference on uncontested issues.” CLI-05-17, 62 NRC at 36 (emphasis omitted). Moreover, with respect to uncontested matters, even regarding the three “baseline” NEPA issues for which a licensing board is required to make its own independent judgment, “the NRC Staff’s underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient.” *Id.* at 39-40. Finally, the Commission again emphasized, this was “not to say that we expect our licensing boards to follow a cursory, hands-off approach On the contrary . . . , we anticipate that our boards will carefully probe those findings by asking appropriate questions and by requiring supplemental information when necessary” *Id.* at 40.

LICENSING BOARD(S): SCOPE OF REVIEW (MANDATORY HEARING REVIEW OF STAFF FINDINGS)

MANDATORY HEARING: SCOPE OF REVIEW (LICENSING BOARD REVIEW OF STAFF FINDINGS)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (LICENSING BOARD MANDATORY HEARING REVIEW OF STAFF FINDINGS)

In sum, the Commission has provided two governing principles for a licensing board's mandatory hearing review process: (1) relative to the Staff's cardinal legal, technical, and environmental determinations, a licensing board should inquire whether the Staff performed an adequate review and made findings that have reasonable logical and factual support; and (2) the factual findings underlying the Staff's legal, technical, and environmental determinations are not subject to licensing board reconsideration unless the board finds the Staff review inadequate or its findings insufficient.

LICENSING BOARD(S): SCOPE OF REVIEW (MANDATORY HEARING REVIEW OF STAFF SAFETY FINDINGS)

MANDATORY HEARING: SCOPE OF REVIEW (LICENSING BOARD REVIEW OF STAFF SAFETY FINDINGS)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (LICENSING BOARD MANDATORY HEARING REVIEW OF STAFF SAFETY FINDINGS)

In examining the principal applicant and Staff review documents in the record relative to its mandatory hearing consideration of uncontested safety matters, the board's focus should be upon areas in which the Staff indicated that its prescriptive process was incomplete or was not followed, or instances when the board's review of the safety evaluation report (SER) and other safety-related documents led it to believe further exploration of a particular item was necessary. The board would not, however, undertake any independent review of or attempt to verify technical results presented in the application or in the Staff's SER. Accordingly, for the purposes of determining whether the Staff had a reasonable basis for its stated conclusions on safety matters, the board would review the record based on the assumption that such a reasonable basis would be present if (1) the applicable standard review plan (SRP) and regulatory guides (along with other pertinent guidance documents) were specifically followed; or (2) the facts underlying a Staff determination were clear and the Staff's decision logically flowed from those facts and the applicable regulatory guidance.

LICENSING BOARD(S): SCOPE OF REVIEW (METHODOLOGY FOR MANDATORY HEARING REVIEW OF STAFF SAFETY FINDINGS)

MANDATORY HEARING: SCOPE OF REVIEW (LICENSING BOARD REVIEW OF STAFF SAFETY FINDINGS)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (LICENSING BOARD MANDATORY HEARING REVIEW OF STAFF SAFETY FINDINGS)

In performing its mandatory hearing review of uncontested safety matters, the licensing board sought information on three topics relative to the general conduct of the Staff's safety review for the uranium enrichment facility application: (1) how the generic SRP for fuel cycle facilities (NUREG-1520) was adapted to the enrichment facility application; (2) what regulatory guides were found applicable and why; and (3) in situations in which a regulatory guide would, in a customary fuel cycle facility application, have been applicable but was not appropriate for the proposed facility, how the Staff addressed (and directed the applicant to address) such matters. More specifically, relative to these inquires the board requested that the Staff provide a written presentation indicating those subsections of the SRP that directly applied to the enrichment facility application as well as a description of how, when a particular subsection of the SRP did not directly apply to the application, the guidance in that subsection was adapted to apply to the application, along with the rationale for that particular adaptation. In addition, the board requested that the Staff identify each regulatory guide used relative to the application, the subsections of the SRP toward which it was applied, and the Staff's rationale for indicating to the applicant, or for finding, that such a regulatory guide was applicable. Finally, the board asked that the Staff indicate each SRP subsection to which no regulatory guide applied and how the Staff addressed (and directed the applicant to address) those matters. The purpose of this approach was to enable the board to accomplish two critical objectives: (1) to identify those areas of review where the SRP was precisely followed, thereby providing a logical and reasonable basis for the board to conclude, giving due deference to the Staff, that no further scrutiny would be required for that area of review; and (2) to identify those areas of review that warranted additional scrutiny, either because there was a deviation from the SRP or the applicable regulatory guidance, or because no existing regulatory guidance directly applied to the application.

**DECOMMISSIONING: FINANCIAL ASSURANCE
(DECOMMISSIONING FUNDING PLAN REQUIREMENTS)**

Pursuant to 10 C.F.R. § 70.25(a)(1), an applicant seeking a license to construct and operate a uranium enrichment facility is required to provide the Staff with a decommissioning funding plan (DFP), which essentially consists of a site-specific estimate of the costs for decommissioning the facility, and a description and certification of the means by which funds for decommissioning will be assured, *see id.* § 70.25(e). The purpose of the financial assurance requirement is to provide reasonable assurance that adequate funds will be available, through appropriate mechanisms, for facility decommissioning should a licensee be unable or unwilling to complete decommissioning. *See* NUREG-1757, “Consolidated NMSS Decommissioning Guidance,” vol. 3 (Sept. 2003), at 4-1 [hereinafter NUREG-1757].

**DECOMMISSIONING: FINANCIAL ASSURANCE (FUNDING
METHODS)**

Section 70.25(f) of 10 C.F.R. sets forth a variety of methods by which an applicant may provide financial assurance, including (1) prepayment of funds into a segregated account prior to the start of facility operations; (2) a surety method, insurance, or other guarantee method; and (3) annual deposits into a segregated account coupled with a surety method or insurance, whereby the surety value decreases over time by the amount accrued in the segregated account. *See* 10 C.F.R. § 70.25(f)(1)-(3).

**DECOMMISSIONING: FINANCIAL ASSURANCE (PERIODIC
ADJUSTMENT OF COST ESTIMATE)**

Section 70.25(e) of 10 C.F.R. requires an applicant to adjust its cost estimates and associated financial assurance levels at least once every 3 years. The purpose of this periodic adjustment mechanism is to “help ensure that financial assurance obtained by licensees will not become inadequate as a result of changing disposal prices or other factors,” such as inflation or changes in facility operations. *See* 68 Fed. Reg. 57,327, 57,332 (Oct. 3, 2003). This periodic adjustment process is intended to capture changes to a licensee’s estimated decommissioning costs regardless of the cause, and to ensure that adequate financial assurance is provided by the licensee at any given time. It has no bearing on the initial cost estimate and associated financial assurance, but rather establishes a process by which the licensee and the NRC account for costs that are not foreseeable at the time of facility licensing.

DECOMMISSIONING: FINANCIAL ASSURANCE (SURETY BOND FUNDING METHOD)

NUREG-1757, which provides guidance to the Staff and applicants/licensees regarding, among other things, financial assurance requirements and the related funding mechanisms, describes a surety bond as follows:

A payment surety bond (or surety bond) is a guarantee by a surety company (or surety) that it will fund decommissioning activities if the principal (i.e., the licensee) fails to do so. In issuing a surety bond, the surety company becomes “jointly and severally” liable for the guaranteed payment, meaning that the surety assumes the licensee’s obligation to fund decommissioning as its own and can be sued jointly with the licensee for the obligation. Consequently, most surety bonds include an indemnification provision that requires the principal to reimburse the surety for costs incurred in satisfaction of the principal’s obligations.

NUREG-1757, at A-88. A surety bond must be funded in an amount greater than or equal to the decommissioning cost estimate set forth in the licensee’s DFP. *See* 10 C.F.R. § 70.25(e).

DECOMMISSIONING: FINANCIAL ASSURANCE (SURETY BOND FUNDING METHOD)

Section 70.25(f) sets forth several additional conditions that must be included in any such surety bond. First, the surety bond must either be open-ended or written for a specified term subject to automatic renewal, and must specify that the full face value will be automatically paid to the NRC prior to expiration if the licensee does not provide an acceptable replacement mechanism within a specified period of time. *See* 10 C.F.R. § 70.25(f)(2)(i). Second, the surety bond must be directly payable to an acceptable standby trust that will be used to fund decommissioning if the licensee defaults on its decommissioning obligation. *See id.* § 70.25(f)(2)(ii); *see also* NUREG-1757, at A-88. Finally, the surety bond must remain in effect until license termination. *See* 10 C.F.R. § 70.25(f)(2)(iii).

REGULATIONS: INTERPRETATION (10 C.F.R. §§ 70.60, 70.61)

CRITICALITY SAFETY: PERFORMANCE REQUIREMENTS TO LIMIT RISKS OR CONSEQUENCES (HIGH-CONSEQUENCE EVENTS)

Subpart H of 10 C.F.R. Part 70 requires an applicant for authorization “to possess greater than a critical mass of special nuclear material, and engage[] in . . . uranium enrichment,” to comply with certain performance requirements

regarding nuclear criticality safety (NCS). *See* 10 C.F.R. § 70.60. Specifically, 10 C.F.R. § 70.61(a) requires an applicant to evaluate, in its integrated safety analysis (ISA) performed in accordance with 10 C.F.R. § 70.62, its compliance with performance requirements set forth in section 70.61(b) through (d). Section 70.61(b) requires an applicant to limit, through the application of engineered and/or administrative controls, the risk of credible high-consequence events so as to make them “highly unlikely,” or to make their consequences less severe than certain established dose and exposure limits set forth in section 70.61(b)(1)-(4). For its part, section 70.61(c) imposes similar requirements with regard to limitation of the risk posed by each credible intermediate-consequence event so as to make the event “unlikely” or its consequences less severe than dose and exposure limits set forth in section 70.61(c)(1)-(4).

REGULATIONS: INTERPRETATION (10 C.F.R. §§ 70.61, 70.64, 70.65)

CRITICALITY SAFETY: PERFORMANCE REQUIREMENTS TO LIMIT RISKS OR CONSEQUENCES (NORMAL AND CREDIBLE ABNORMAL CONDITIONS)

In addition, section 70.61(d) requires that the risks of criticality accidents be limited by assuring that all nuclear processes are subcritical under normal and credible abnormal conditions, including the use of an approved margin of subcriticality, and mandates that preventive measures be the primary means of protection against criticality accidents. Moreover, section 70.61(e) requires that each engineered or administrative control/control system necessary to comply with paragraphs (b) through (d) be designated an item relied on for safety (IROFS). Finally, 10 C.F.R. § 70.64(a)(9) mandates that the design of new facilities “provide for criticality control including adherence to the double contingency principle,” i.e., that “process designs should incorporate sufficient factors of safety to require at least two unlikely, independent, and concurrent changes in process conditions before a criticality accident is possible,” *id.* § 70.4. An applicant must provide documentation of its compliance with the section 70.61 performance requirements in its ISA Summary. *See id.* § 70.65(b)(4); *see also* [NEF ISA] Summary, vols. 1 & 2 (Apr. 2005).

REGULATORY GUIDANCE: INTERPRETATION AND APPLICATION (CRITICALITY SAFETY)

CRITICALITY SAFETY: PERFORMANCE REQUIREMENTS TO LIMIT RISKS OR CONSEQUENCES (STAFF GUIDANCE)

Two Staff guidance documents, though not legally binding, provide further

information regarding the relevant criticality safety regulations. The Staff published an interim Staff guidance (ISG) document, “Nuclear Criticality Safety Performance Requirements and Double Contingency Principle,” to provide additional information about the relationship between the various subsections of 10 C.F.R. § 70.61. *See* ISG-03, [NCS] Performance Requirements and Double Contingency Principle (Feb. 17, 2005). ISG-03 explains that, due to the risk-informed, performance-based nature of section 70.61(b) and (c), in theory a facility operator could have an inadvertent criticality, but still be in compliance with the dose limits set forth in paragraphs (b) and (c). Thus, the guidance explains, the purpose of section 70.61(d) is to ensure that all nuclear processes are designed to remain subcritical under normal and credible abnormal conditions. *See id.* at 2, 4-5.

CRITICALITY SAFETY: PERFORMANCE REQUIREMENTS TO LIMIT RISKS OR CONSEQUENCES (STAFF GUIDANCE)

Chapter 3 of the SRP provides additional guidance concerning the content of the ISA Summary and how an applicant can comply with section 70.65(b)(4), which, as noted above, requires an applicant to present information that demonstrates compliance with section 70.61. *See* NUREG-1520, “[SRP] for the Review of a License Application for a Fuel Cycle Facility,” ch. 3 (Mar. 2002). Stated generally, an applicant must identify and assess all credible accident sequences and identify appropriate mitigation measures, commonly referred to as IROFS, to prevent or mitigate the consequences of such accidents. *See id.* at 3-4. In addition, SRP section 5.4.3.4.4 provides guidance with regard to section 70.61(d) compliance, and essentially states that an applicant’s commitment to comply with regulatory requirements, including use of appropriate controls, standards, and subcritical limits, as well as its implementation of a double contingency protection program, should be considered acceptable for the purpose of meeting section 70.61(d) standards. *See id.* at 5-15 to -16.

NEPA: ENVIRONMENTAL IMPACT STATEMENT (NEED)

Under the agency’s NEPA regulations, the Staff’s draft and final environmental impact statements are to include a “statement [that] will briefly describe and specify the need for the proposed action.” 10 C.F.R. Part 51, Subpart A, App. A, § 4.

LICENSING BOARD(S): RESPONSIBILITIES (“BASELINE” NEPA FINDINGS)

MANDATORY HEARING: NEPA (“BASELINE” FINDINGS)

NEPA: MANDATORY HEARING (“BASELINE” FINDINGS)

RULES OF PRACTICE: MANDATORY HEARING (“BASELINE” NEPA FINDINGS)

Regardless of whether a proceeding is contested or uncontested, in proceedings for which a mandatory hearing is required, a licensing board is required to make the following “baseline” determinations regarding NEPA issues:

- (i) Determine whether the requirements of section 102(2)(A), (C), and (E) of [NEPA] and subpart A of part 51 . . . have been complied with in the proceeding;
- (ii) Independently consider the final balance among conflicting factors contained in the record of the proceeding with a view to determining the appropriate action to be taken; and
- (iii) Determine whether the construction permit should be issued, denied, or appropriately conditioned to protect environmental values.

See 10 C.F.R. § 2.104(b)(3); *see also* CLI-04-3, 59 NRC at 12-13. Regarding the appropriate standard of review to be used by a licensing board when making these “baseline” NEPA determinations, the Commission stated that “licensing boards must reach their own independent determination on uncontested NEPA ‘baseline’ questions — i.e., whether the NEPA process ‘has been complied with,’ what is the appropriate ‘final balance among conflicting factors,’ and whether the ‘construction permit should be issued, denied or appropriately conditioned.’” CLI-05-17, 62 NRC at 45. In reaching these independent determinations, “boards should not second-guess underlying technical or factual findings by the NRC Staff,” and “[t]he only exceptions to this would be if the reviewing board found the Staff review to be incomplete or the Staff findings to be insufficiently explained in the record.” *Id.*

LICENSING BOARD(S): RESPONSIBILITIES (“BASELINE” NEPA FINDINGS)

MANDATORY HEARING: NEPA (“BASELINE” FINDINGS)

NEPA: MANDATORY HEARING (“BASELINE” FINDINGS)

RULES OF PRACTICE: MANDATORY HEARING (“BASELINE” NEPA FINDINGS)

The Commission further directed licensing boards to follow the approach set

forth in *Calvert Cliffs' Coordinating Committee, Inc. v. AEC*, in which the United States Court of Appeals for the District of Columbia Circuit stated:

The Commission's regulations provide that in an uncontested proceeding the hearing board shall on its own determine whether the application and the record of the proceeding contain sufficient information, and the review of the application by the Commission's regulatory staff has been adequate, to support affirmative findings on various nonenvironmental factors. NEPA requires at least as much automatic consideration of environmental factors. In uncontested hearings, the board need not necessarily go over the same ground covered in the detailed [environmental impact] statement. But it must at least examine the statement carefully to determine whether the review . . . by the Commission's regulatory staff has been adequate. And it must independently consider the final balance among conflicting factors that is struck in the staff's recommendation.

449 F.2d 1109, 1118 (D.C. Cir. 1971) (footnote and internal quotation marks omitted).

NEPA: SCOPE OF ENVIRONMENTAL ANALYSIS (SECTION 102(2)(A))

NEPA § 102(2)(A) requires all federal agencies to “utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment.” 42 U.S.C. § 4332(2)(A).

NEPA: SCOPE OF ENVIRONMENTAL ANALYSIS (SECTION 102(2)(C))

Section 102(2)(C) of NEPA requires a federal agency to address in its environmental impact statement: (1) the environmental impact of the proposed action; (2) any unavoidable adverse impacts associated with implementation of the proposed action; (3) alternatives to the proposed action; (4) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and (5) any irreversible and irretrievable commitment of resources that might result from the proposed action. *See id.* § 4332(2)(C).

NEPA: CONSULTATION WITH OTHER FEDERAL AGENCIES (SECTION 102(2)(C))

NEPA § 102(2)(C) also requires that an agency “consult with and obtain the

comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved.” *Id.*

NEPA: CONSIDERATION OF ALTERNATIVES (SECTION 102(2)(E))

Section 102(2)(E) of NEPA requires a federal agency to “study, develop, and describe appropriate alternatives to the recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.” *Id.* § 4332(2)(E).

TECHNICAL ISSUE(S) DISCUSSED

The following technical issues are discussed: financial qualifications (decommissioning); decommissioning (adequacy of cost estimates); decommissioning (financial assurance); decommissioning (funding methods); nuclear criticality safety; materials compatibility; fire safety; consideration of purpose and need; depleted uranium cylinder rupture accident.

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**FINAL PARTIAL INITIAL DECISION
(Mandatory Hearing/Uncontested Issues)**

I. INTRODUCTION AND BACKGROUND

1.1 On March 6, 2006, this Licensing Board conducted an evidentiary hearing in Hobbs, New Mexico, in accordance with the requirements of the Atomic Energy Act of 1954 (AEA) and 10 C.F.R. Part 70 mandating that a hearing is required regarding the pending application of Louisiana Energy Services, L.P. (LES), for a 10 C.F.R. Part 70 license to possess and use source, byproduct, and special nuclear material to enrich natural uranium at a proposed facility, designated as the National Enrichment Facility (NEF), to be constructed and operated near Eunice, New Mexico. This Partial Initial Decision (PID) sets forth the Board’s findings regarding uncontested matters in this proceeding, including the results of the Board’s review of the relevant portions of the record of the proceeding and the March 6, 2006 mandatory evidentiary hearing. This is the final decision by the Board in this proceeding, which authorizes the NRC Staff to issue a Part 70 license for the NEF, effective immediately.

A. Mandatory Hearing Requirement

1.2 This is the first mandatory hearing conducted by a Licensing Board in over two decades. Accordingly, to provide a fuller understanding of what is involved in the mandatory hearing or uncontested portion of this uranium enrichment facility licensing proceeding, we provide some background concerning the general basis for and purpose of a mandatory hearing, as well as outline what transpired in the contested portion of this case.

1.3 The source of the mandatory hearing requirement for this uranium enrichment facility is AEA § 193(b)(1), 42 U.S.C. § 2243(b)(1), which provides, in relevant part, that “[t]he Commission shall conduct a single hearing on the record with regard to the licensing of the construction and operation of a uranium enrichment facility” Sections 70.23a and 70.31(e) of Title 10 of the *Code of Federal Regulations* (C.F.R.) implement this mandate, declaring that before a uranium enrichment facility such as the proposed NEF can be licensed, a hearing is required to be held.

1.4 Regarding the scope and content of the mandatory/uncontested hearing, as well as the contested hearing(s), for this uranium enrichment facility licensing proceeding, in its January 30, 2004 notice of hearing the Commission specified that:

C. The matters of fact and law to be considered are whether the application satisfies the standards set forth in this Notice and Commission Order and the applicable standards in 10 C.F.R. §§ 30.33, 40.32, and 70.23, and whether the requirements of 10 C.F.R. Part 51 have been met.

D. If this proceeding is not a contested proceeding, as defined by 10 C.F.R. § 2.4, the Board will determine the following, without conducting a de novo evaluation of the application: (1) whether the application and record of the proceeding contain sufficient information and whether the NRC Staff’s review of the application has been adequate to support findings to be made by the Director of the Office of Nuclear Materials Safety and Safeguards, with respect to the matters set forth in paragraph C of this section, and (2) whether the review conducted by the NRC Staff pursuant to 10 C.F.R. Part 51 has been adequate.

E. Regardless of whether the proceeding is contested or uncontested, the Board will, in its initial decision, in accordance with Subpart A of Part 51: Determine whether the requirements of sections 102(2)(A), (C), and (E) of [the National Environmental Policy Act (NEPA)] and Subpart A of Part 51 have been complied with in the proceeding; independently consider the final balance among conflicting factors contained in the record of proceeding with a view to determining the appropriate action to be taken; and determine whether a license should be issued, denied, or conditioned to protect the environment.

F. If the proceeding becomes a contested proceeding, the Board shall make findings of fact and conclusions of law on admitted contentions. With respect to matters set forth in paragraph C of this section but not covered by admitted

contentions, the Board will make the determinations set forth in paragraph D without conducting a de novo evaluation of the application.

CLI-04-3, 59 NRC 10, 12-13 (2004).

1.5 Also pertinent, albeit not applicable on their face to uranium enrichment facilities, are provisions in 10 C.F.R. Part 2 intended to implement the mandatory hearing requirement in AEA § 189a(1)(A), 42 U.S.C. § 2239(a)(1)(A), which is applicable to construction permits for power reactor and testing facilities. In a hearing on a *contested* license application, i.e., one in which a hearing petition seeking to have admitted one or more contentions challenging some aspect of the application is granted, 10 C.F.R. § 2.104(b)(1) directs a licensing board to “consider”:

- (i) Whether in accordance with the provisions of [10 C.F.R.] § 50.35(a) . . . :
 - (a) The applicant has described the proposed design of the facility, including, but not limited to, the principal architectural and engineering criteria for the design, and has identified the major features or components incorporated therein for the protection of the health and safety of the public;
 - (b) Such further technical or design information as may be required to complete the safety analysis, and which can reasonably be left for later consideration will be supplied in the final safety analysis report;
 - (c) Safety features or components, if any, which require research and development, have been described by the applicant and the applicant has identified, and there will be conducted, a research and development program reasonably designed to resolve any safety questions associated with such features or components; and
 - (d) On the basis of the foregoing, there is reasonable assurance that (1) such safety questions will be satisfactorily resolved at or before the latest date stated in the application for completion of the proposed facility; and (2) taking into consideration the site criteria contained in part 100 of this chapter, the proposed facility can be constructed and operated at the proposed location without undue risk to the health and safety of the public;
- (ii) Whether the applicant is technically qualified to design and construct the proposed facility;
- (iii) Whether the applicant is financially qualified to design and construct the proposed facility;
- (iv) Whether the issuance of a permit for the construction of the facility will be inimical to the common defense and security or to the health and safety of the public;
- (v) If the application is for a construction permit for a nuclear power reactor, a testing facility, fuel reprocessing plant, or other facility whose construction or operation has been determined by the Commission to have a significant impact on the environment, whether, in accordance with the requirements of subpart A of part 51 of this chapter, the construction permit should be issued as proposed.

On the other hand, for *uncontested* license applications, i.e., those for which no hearing request is granted, 10 C.F.R. § 2.104(b)(2) requires a Board to “determine”:

- (i) Without conducting a de novo evaluation of the application, whether the application and the record of the proceeding contain sufficient information, and the review of the application by the Commission’s staff has been adequate to support affirmative findings on (b)(1)(i) through (iii) specified in [10 C.F.R. § 2.104] and a negative finding on (b)(1)(iv) specified in [10 C.F.R. § 2.104] proposed to be made and the issuance of the construction permit proposed by the Director of Nuclear Reactor Regulation or Director of Nuclear Material Safety and Safeguards, as appropriate, and
- (ii) If the application is for a construction permit for a nuclear power reactor, a testing facility, a fuel processing plant, a uranium enrichment facility, or other facility whose construction or operation has been determined by the Commission to have a significant impact on the environment, whether the review conducted by the Commission pursuant to [NEPA] has been adequate.

Additionally, regardless of whether the proceeding is *contested* or *uncontested*, 10 C.F.R. § 2.104(b)(3) gives a licensing board responsibility for three “baseline” NEPA issues, pursuant to which a licensing board must:

- (i) Determine whether the requirements of section 102(2)(A), (C) and (E) of [NEPA] and subpart A of part 51 of this chapter have been complied with in the proceeding;
- (ii) Independently consider the final balance among conflicting factors contained in the record of the proceeding with a view to determining the appropriate action to be taken; and
- (iii) Determine whether the construction permit should be issued, denied, or appropriately conditioned to protect environmental values.

1.6 Within the past year, the Commission had cause to provide some guidance regarding the conduct of mandatory hearings by licensing boards. With five proceedings of two different types (i.e., three 10 C.F.R. Part 52 early site permit (ESP) cases and two 10 C.F.R. Part 70 uranium enrichment facility cases, including this proceeding¹) pending before different Licensing Boards, the

¹ Specifically, the cases then pending before the Licensing Board Panel were *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site); *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site); *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site); and *LES*. At the time the Board certified its questions, the proceeding on the *USEC Inc.* (American Centrifuge Plant) application had not yet been referred to the Licensing Board Panel. Because USEC had, at that time, submitted its application to the NRC, the Commission permitted USEC to brief the
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Licensing Board Panel's Chief Administrative Judge certified (on behalf of the five interested boards), a series of questions to the Commission regarding the scope of these hearings. *See* LBP-05-7, 61 NRC 188 (2005). In so doing, relative to the relationship between the items for consideration specified in the *LES* notice of hearing and those in section 2.104(b), the Chief Administrative Judge noted:

With respect to AEA safety matters . . . in its section II.F regarding contested cases, the *LES* notice references the standards in section II.C of the *LES* notice. *See Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-3, 59 NRC 10, 13 (2004). In turn, section II.C of the *LES* notice references the specific AEA safety provisions in Parts 30, 40, and 70 that apply to uranium enrichment facilities. *See id.* at 12. As to NEPA matters, . . . the . . . *LES* notice[] reference[s] what has been referred to . . . as the three "baseline" NEPA findings that, in accord with 10 C.F.R. § 51.105(a) (1)-(3) (*see also id.* § 2.104(b)(3)), must be made in either a contested or uncontested proceeding. Additionally, [the] notice[] reference[s] the NEPA mandatory hearing findings that are required, depending upon whether a proceeding is contested or uncontested. *See id.* §§ 2.104(b)(1)(v), 51.105(a)(5) (contested proceeding); *id.* §§ 2.104(b)(2)(ii), 51.105(a)(4) (uncontested proceeding).

Id. at 193.

1.7 Of the six questions certified to the Commission,² two general areas are of particular import here: (a) those regarding the scope of review to be used by licensing boards with respect to the findings they must make in a mandatory

issues relative to the certified questions, and its mandatory hearing decision applies with equal force to the *USEC* proceeding. *See Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-17, 62 NRC 5, 26 (2005).

²The questions certified to the Commission by the Chief Administrative Judge dealt with the following six subjects: (1) the scope of review to be used by licensing boards with respect to the findings they must make concerning the two ESP AEA safety issues and the NEPA issue; (2) whether a proceeding as a whole should be considered "contested" or "uncontested," or whether those categorizations instead apply to portions of a proceeding, depending on whether the select portions encompass matters that were the subject of admitted contentions; (3) whether, in an uncontested proceeding, a licensing board's determinations regarding (a) the sufficiency of the information in the application and record of the proceeding and the adequacy of the Staff's review of the application to support its findings on two identified safety issues, and (b) the adequacy of the review conducted by the Commission pursuant to NEPA and Subpart A of 10 C.F.R. Part 51, be made by conducting a de novo review of the application at issue; (4) the scope of review to be used by licensing boards in making the three required "baseline" NEPA findings; (5) whether the omission of the phrase "after considering reasonable alternatives" from the *LES* hearing notice was intended to create a distinction between the responsibilities of the *LES* and ESP licensing boards with respect to their findings on NEPA "baseline" issue three (i.e., whether the license should be issued, denied, or appropriately conditioned); and (6) whether the omission in the ESP and *LES* notices of any reference to the cost-benefit balancing requirement in section 51.105(a)(3) was intended to narrow further the scope of review to be used by the licensing boards in the mandatory hearing proceedings. *See* LBP-05-7, 61 NRC at 194-99.

hearing; and (b) whether the review standard, which differs for a “contested” proceeding from that for an “uncontested” proceeding, should be applied to the contested and uncontested *portions* of a proceeding instead of to the proceeding as a whole. *See id.* at 195-96.

1.8 In its July 22, 2005 memorandum and order responding to the certified questions, the Commission provided interpretative guidance for licensing boards conducting mandatory hearings. *See* CLI-05-17, 62 NRC 5 (2005). At the outset, addressing the question of whether proceedings should be treated in their entirety as “contested” or “uncontested,” as the plain language of our regulations seemed to imply, the Commission held that “the contested and uncontested designations apply issue-by-issue, and not to proceedings-at-large.” *Id.* at 34. The net effect of this ruling is to eliminate the possibility that admission of a single, relatively minor contention would negate the need to conduct a separate mandatory hearing.

1.9 The Commission’s guidance regarding the scope of a Board’s responsibility in the uncontested portion of a proceeding is particularly important in the instant proceeding. The hearing notice for this proceeding required, in accord with 10 C.F.R. § 2.104(b)(2)(i), this Board to determine, with respect to safety matters, “whether the application and record of the proceeding contain sufficient information and whether the NRC Staff’s review of the application has been adequate to support findings to be made . . . with respect to the matters set forth in paragraph [II.C] of this [notice],” and that these determinations are to be made “without conducting a *de novo* evaluation of the application.” CLI-04-3, 59 NRC at 12. Because a true *de novo* review would involve *complete* repetition of the Staff’s work, this stated limitation does little to clarify the scope of review contemplated by the charge to determine whether the record supports an affirmative Staff finding. Taken on its face, at its most literal reading and without Commission guidance, this directive would require each member of the Board to scour the entire record of the proceeding (including the thousands of pages of the application, the integrated safety analysis (ISA), environmental report (ER), and all requests for additional information (RAIs) and responses), and investigate all technical, economic, and legal matters covered therein sufficiently to enable him or her to affirm (or disaffirm) that the conclusions of the Staff were supported in the record. This is a daunting task for a licensing board given that the Staff spent, as we have been advised in this proceeding, approximately 6 to 7 person-years performing its own review of the application and reaching its own independent conclusions.³ *See* Tr. at 3543. Furthermore, in determining the effort involved and the efficacy of asking a licensing board to perform an in-depth review of the Staff’s work (for which the Staff routinely employs a variety of expertise

³ We would estimate that for a licensing board to conduct an in-depth review of that work would require an effort on the order of at least one-tenth the time it took the Staff to perform that work in the first instance.

from within and without the agency), we are cognizant of the fact that individual licensing board members each have their own specialized expertise and may well find material portions of the application and the Staff's review thereof outside their area of expertise, therefore requiring substantial additional effort.⁴

1.10 In its response to the Chief Administrative Judge's certified inquiries, however, the Commission clearly delineated the respective roles of a licensing board and the Staff, advising that a board's task is "to constitute a check on the understanding of the staff." *See* CLI-05-17, 62 NRC at 40 (internal quotation marks and footnote omitted). The Commission cautioned that "'truly independent review' . . . does not mean that multiple reviews of the same *uncontested* issues — first by the NRC Staff, then by the [Advisory Committee on Reactor Safeguards (ACRS)], and finally by a licensing board — would be necessary to serve this purpose [of constituting a check on the understanding of the Staff],"⁵ *id.*, and summarized by noting that "boards should conduct a simple 'sufficiency' review of uncontested issues . . .," *id.* at 39.⁶ Nonetheless, to ensure that this guidance was not mistaken as Commission permission for licensing boards to engage in a relatively cursory effort, speaking again to uncontested portions of the proceeding, the Commission defined precisely its view of a licensing board's task, stating "when considering safety and environmental matters not subject to the adversarial process . . . *boards should inquire whether the NRC Staff performed an adequate review and made findings with reasonable support in logic and fact.*" *Id.* (emphasis added). Thus, the scope of a licensing board's review has been clearly defined; i.e., it must identify, investigate, and comprehend the facts underlying, and the logic of, the Staff's central legal, technical, and environmental

⁴In this regard, the Chief Administrative Judge estimated, in certifying these queries to the Commission, that "a full review of an application, including the [safety evaluation report, final environmental impact statement, and Advisory Committee on Reactor Safeguards] recommendations, followed by hearings on issues raised by such a review will consume not less than 1000 person-hours (and, perhaps, double that for complicated applications)." LBP-05-7, 61 NRC at 199 n.15.

⁵We note that in the instant proceeding, the Staff had no interaction with ACRS. The Staff did, however, brief the Advisory Committee on Nuclear Waste (ACNW) on the LES licensing status in May 2004, but this interaction amounted to a fairly summary role on the part of the ACNW that did not result in any formal committee reports or other formal review documents. Rather, the Staff provided for the Board's review copies of the slides from the Staff's PowerPoint presentation and the transcript of that briefing. *See* Letter from M.J. Bupp, NRC Staff Counsel, to Administrative Judges (Mar. 21, 2006), Attach. 1, at 22.

⁶In this regard, the Commission observed that "applying a less stringent 'sufficiency' standard when examining uncontested issues merely recognizes the inherent limitations on a board's review . . . [and a]s a practical matter . . . it would simply not be possible for the two technical members of the panel to evaluate the totality of the material relevant to safety matters that the Staff and ACRS have generated through many months of work." CLI-05-17, 62 NRC at 40 (internal quotation marks and footnotes omitted).

determinations to develop the basis for the licensing board's ultimate findings regarding the adequacy of the record and the sufficiency of the Staff's review.

1.11 Additionally, in further clarifying how a licensing board is to approach this review task, the Commission noted that "as a general matter licensing boards should review contested and uncontested issues differently, giving the NRC Staff considerably more deference on uncontested issues." *Id.* at 36 (emphasis omitted). Moreover, with respect to uncontested matters, even regarding the three "baseline" NEPA issues for which a licensing board is required to make its own independent judgment, "the NRC Staff's underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient." *Id.* at 39-40. Finally, the Commission again emphasized, this was "not to say that we expect our licensing boards to follow a cursory, hands-off approach On the contrary . . . , we anticipate that our boards will carefully probe those findings by asking appropriate questions and by requiring supplemental information when necessary" *Id.* at 40.

1.12 In sum, the Commission has provided two governing principles for our mandatory hearing review process: (1) relative to the Staff's cardinal legal, technical, and environmental determinations, licensing boards should inquire whether the Staff performed an adequate review and made findings that have reasonable logical and factual support; and (2) the factual findings underlying the Staff's legal, technical, and environmental determinations are not subject to licensing board reconsideration unless the board finds the Staff review inadequate or its findings insufficient.⁷

B. Contested Portion of the Proceeding

1.13 With this general explanation regarding the mandatory or uncontested portion of a proceeding such as this one, and before outlining the process by which the Board conducted its review of uncontested matters in this proceeding,

⁷In implementing this guidance, the Board notes that the principal Staff and Applicant documents in the record regarding technical matters (the ISA Summary and the safety evaluation report, for example) do not in all instances lend themselves to rigorous technical verification given they merely identify the determinations that were made, only occasionally denoting the applicable computer codes or other analytical methodology used to reach a Staff finding. Thus, the record itself often does not supply adequate technical information to permit a licensing board's technical members to verify fully the *validity* of such Applicant and Staff technical conclusions, at least not without the type of in-depth questioning and massive record supplementation regarding the underlying technical methodology and computations that would require a Board effort seemingly akin to the *de novo* review the Commission has advised that licensing boards are not to undertake. Thus the Commission's guidance that licensing boards are to identify and examine the facts and logic undergirding the Staff's central decisions is consummately reasonable.

we digress briefly to provide a brief summary of the contested portion of this case. On December 12, 2003, LES filed with the Staff an application to obtain a license to possess and use source, byproduct, and special nuclear material to enrich natural uranium at the NEF, for which it also sought construction and operation authorization.⁸ On January 30, 2004, the Commission issued a notice of hearing and opportunity to intervene in the proceeding on the NEF application. *See* CLI-04-3, 59 NRC 10. Thereafter, intervention petitions were submitted by private petitioners Nuclear Information and Resource Service and Public Citizen (NIRS/PC) and two state governmental entities, the New Mexico Environment Department (NMED) and the Attorney General of New Mexico (AGNM). A thorough discussion of the procedural history of the contested portion of this proceeding and the Board's rulings on contested matters, including its admission of these Petitioners as parties to the proceeding, its approval of a settlement agreement between LES and NMED and the AGNM regarding their admitted contentions, and the Board's disposition of the AEA-related technical and NEPA-related environmental issues raised by NIRS/PC, are set forth in our first three PIDs relative to contested matters.⁹ We do not detail that information here,¹⁰ but simply note that the contested portion of this proceeding provided the sole adjudicatory forum for intervening parties to raise concerns regarding the NEF application,¹¹ and that those matters that were the subject of the contested portion

⁸The primary function of the proposed NEF will be to enrich natural uranium, in the form of uranium hexafluoride (UF₆), from its natural isotopic concentration of approximately 0.7% uranium-235 (U-235) to 5% U-235. The enrichment process consists of using fast-rotating cylinders, called centrifuges, at subatmospheric conditions to generate centrifugal forces that separate the various uranium isotopes based on their different molecular weights (i.e., the heavier isotope, uranium-238, will move toward the outer wall of the centrifuge, while the lighter U-235 isotopes will move toward the center). This enrichment process yields two streams: a product stream consisting of enriched UF₆ and a byproduct stream consisting of depleted UF₆. *See, e.g.*, Staff Exh. 49-M at 1-1 (NUREG-1827, "Safety Evaluation Report for the [NEF] in Lea County, New Mexico" (June 2005)).

⁹*See* LBP-06-15, 63 NRC 591, 603-22 (2006) (third PID on safety-related contentions); LBP-06-8, 63 NRC 241, 250-58 (2006) (second PID on the environmental impacts of depleted uranium disposal); LBP-05-13, 61 NRC 385, 392-402 (2005) (first PID on NEPA-related contentions).

¹⁰During the contested portion of the proceeding, the Board considered evidence regarding the following general matters: (1) impacts of the facility on groundwater quality; (2) impacts of the facility on local and regional water supplies; (3) the need for the facility; (4) the environmental impacts associated with the deconversion of depleted uranium hexafluoride to depleted triuranium octaoxide, and the subsequent disposal thereof; and (5) the plausibility and estimated cost of LES's commercial strategy for dispositioning depleted uranium generated at the NEF.

¹¹NIRS/PC did, however, petition to participate in the mandatory portion of this proceeding, a petition the Board denied. On February 10, 2006, NIRS/PC filed a motion with the Board seeking leave to appear, argue, present evidence, and cross-examine witnesses with regard to certain issues to be heard at the mandatory hearing. *See* Motion for Leave To Appear, Argue, Give Evidence

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of this proceeding are excluded from consideration in this uncontested portion of the proceeding.

C. Uncontested Portion of the Proceeding

1.14 The uncontested portion of this proceeding was conducted by the Board on a separate track.¹² In an August 12, 2005 memorandum and order memorializing the results of a prehearing conference with the parties, the Board established a schedule for the uncontested portion of the proceeding. *See* Licensing Board Memorandum and Order (Memorializing Results of Prehearing Conference) (Aug. 12, 2005) at 1-2 (unpublished). In addition, the Board requested that the Staff and LES provide the Board with a number of documents associated with the LES application to construct and operate the NEF and the associated Staff review of the application, including the SAR, ISA Summary, and any Staff RAIs and associated RAI responses. *See id.* at 2. The Board also indicated at that time that it would hold another prehearing conference with the Staff and LES sometime in January 2006 to discuss key issues to be addressed during the mandatory hearing and the scope of the LES and Staff evidentiary presentations. Finally, the Board indicated that it would provide the Staff and LES with written questions relative to its particular areas of concern regarding the Staff's findings in connection with the LES application subsequent to that January 2006 conference call.

and Cross-Examine on Behalf of Intervenors [NIRS/PC] (Feb. 10, 2006). NIRS/PC asserted that certain matters identified by the Board as "areas of concern" relative to the mandatory findings the Board must make regarding uncontested matters in this proceeding "go[] to the heart of contentions advanced by NIRS/PC," and therefore constituted contested issues that could not be considered without NIRS/PC's participation. *Id.* at 6. LES and the Staff each opposed the motion. *See* [LES] Response to Motion for Leave To Appear, Give Evidence, and Cross Examine on Behalf of Intervenors [NIRS/PC] (Feb. 21, 2006); NRC Staff Answer to Motion for Leave To Appear, Argue, Give Evidence and Cross-Examine on Behalf of Intervenors [NIRS/PC] (Feb. 21, 2006). The Board, finding that the matters it raised regarding the mandatory hearing were outside the scope of any admitted contentions in the proceeding, denied NIRS/PC's motion to participate in the mandatory hearing. *See* Licensing Board Memorandum and Order (Regarding NIRS/PC Motion for Leave To Participate in Mandatory Hearing) (Feb. 24, 2006) (unpublished).

¹² Although an August 16, 2004 Board memorandum and order setting the general schedule for this proceeding initially contemplated conducting the uncontested portion of this proceeding on a track simultaneous with the contested portion of the proceeding, including conducting back-to-back evidentiary hearings and issuing concurrent partial initial decisions, *see* Licensing Board Memorandum and Order (Memorializing and Ruling on Matters Raised in Conjunction with August 3, 2004 Conference Call and Setting General Schedule for Proceeding) (Aug. 16, 2004), App. A at 2 (unpublished), various considerations, including the pendency of the Board's certified mandatory hearing questions with the Commission, counseled bifurcating the contested and uncontested portions of the proceeding. *See, e.g.,* Licensing Board Memorandum and Order (Location for Fall 2005 Evidentiary Hearing on Contested Issues) (July 15, 2005) at 2-3 (unpublished).

1.15 In actuality, the Board subsequently conducted three discussions with the Staff and LES concerning the scope and content of the mandatory hearing.¹³ Of particular import, however, was a January 25, 2006 conference, after which the Board issued a January 30, 2006 memorandum and order in which it memorialized the particular questions gleaned from its consideration of the NEF application and related Staff review documents, as well as provided the parties with guidance on various administrative matters associated with the mandatory hearing, including the submission of prefiled testimony and exhibits. *See* Licensing Board Memorandum and Order (Memorializing Board Questions/Areas of Concern for Mandatory Hearing) (Jan. 30, 2006) (unpublished) [hereinafter January 30 Order]. The Staff thereafter requested clarification on certain Board questions (transmitted to the Board via e-mail on February 3, 2006), which the Board provided during a February 6, 2006 teleconference and memorialized in writing by a memorandum and order issued on February 8, 2006. *See* Licensing Board Memorandum and Order (Administrative Matters Relative to Mandatory Hearing) (Feb. 8, 2006), Attach. A (unpublished) [hereinafter February 8 Order]. On February 24, 2006, the Staff and LES submitted prefiled testimony and supporting exhibits to address the Board's specific identified questions and areas of concern.

1.16 In accordance with the schedule set forth in the Board's August 2005 memorandum and order, an evidentiary hearing session focusing on the Board's written questions regarding its identified areas of concern was held on March 6, 2006, in Hobbs, New Mexico. *See* Tr. at 3499-3688. During the hearing, Staff and LES witnesses answered the Board's questions regarding the information provided in their prefiled written testimony and supporting exhibits, which were admitted into the evidentiary record at that hearing.¹⁴

¹³Specifically, at the conclusion of the October 2005 evidentiary hearing on contested matters, the Board identified several areas of concern and specific questions arising from its review of the materials provided to the Board on September 16, 2005. *See* Tr. at 3167-78. Thereafter, during a January 25, 2006 prehearing conference with the Staff and LES, the Board identified several additional questions/areas of concern that it later memorialized in a January 30, 2006 memorandum and order. *See* Licensing Board Memorandum and Order (Memorializing Board Questions/Areas of Concern for Mandatory Hearing) (Jan. 30, 2006) at 2-4 (unpublished); Tr. at 3183-3213. On February 6, 2006, at the request of the Staff, the Board held an additional prehearing conference with the parties during which the Board clarified for the Staff additional issues related to those matters identified by the Board during the October 2005 and January 2006 conferences. *See* Licensing Board Memorandum and Order (Administrative Matters Relative to Mandatory Hearing) (Feb. 8, 2006), Attach. A (unpublished); Tr. at 3214-54.

¹⁴Many of the areas of concern identified by the Board in advance of the hearing were denoted as applicable to both the Staff and LES and, accordingly, the parties' respective testimony overlapped to a degree. To promote a constructive dialogue between the Board and the Staff and LES witnesses, in those instances when both parties provided prefiled testimony regarding a topic, the Board empaneled

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1.17 In addition, in conjunction with its mandatory hearing session, the Board conducted limited appearance sessions in Hobbs, New Mexico, on March 5 and 6, at which time approximately eighty individuals expressed their views regarding the proposed LES facility. *See* Tr. at 1-80 (Mar. 6, 2006); Tr. at 1-84 (Mar. 5, 2006).

1.18 Following the March 6, 2006 hearing, the Staff sought and received permission to supplement the record with additional information regarding the cost estimate for dispositioning depleted uranium tails generated by the proposed NEF by the Department of Energy (DOE) in accordance with section 3113 of the USEC Privatization Act, 42 U.S.C. § 2297h-11. *See* NRC Staff Motion To Supplement the Record (Apr. 6, 2006) [Staff Motion To Supplement]; Licensing Board Memorandum and Order (Supplementing and Closing Evidentiary Record of Mandatory Hearing) (Apr. 11, 2006) (unpublished) [hereinafter April 11 Order]. Thereafter, pursuant to the Board's schedule, the Staff and LES timely submitted proposed findings of fact and conclusions of law on April 10, 2006. *See* NRC Staff's Proposed Findings of Fact and Conclusions of Law in the Mandatory Hearing (Apr. 10, 2006) [hereinafter Staff Proposed Findings]; [LES] Proposed Findings of Fact and Conclusions of Law Concerning Mandatory Hearing Issues (Apr. 10, 2006) [hereinafter LES Proposed Findings]. Finally, on April 11, 2006, the Board closed the evidentiary record of the uncontested portion of this proceeding. *See* April 11 Order at 2.

II. FACTUAL FINDINGS AND LEGAL CONCLUSIONS

2.1 Following the approach outlined above relative to the conduct of mandatory hearings, *see supra* Part I.A, in its January 30 memorandum and order, the Board requested that LES and the Staff make presentations addressing eight identified questions relative to several areas of concern regarding the Staff's safety review of the NEF application, and two items regarding the Staff's environmental review. *See* January 30 Order at 2-4. In addition, the Board reminded LES and the Staff that their prefiled testimony should address those questions and areas of concern identified by the Board at the conclusion of the October 2005 evidentiary hearing, and subsequently clarified by an order issued February 8, 2006. *See* Tr. at 3167-79; February 8 Order, Attach. A. Below we set forth: (1) an overview of the Staff's safety review process, *see infra* Part II.A.1; (2) Board questions and findings with respect to the Staff's safety review, *see infra* Part II.A.2; (3) Board questions and findings related to the Staff's environmental review, *see infra* Part

both parties' witnesses concurrently for those particular subjects. This allowed each party's witnesses immediately to respond or provide information relative to any Board question directed at the other party's witnesses.

II.B.1-.2; and (4) Board findings with respect to the three “baseline” NEPA determinations required by paragraph II.E of the Commission’s notice of hearing (which parallels 10 C.F.R. § 2.104(b)(3)), *see infra* Part II.B.3.

A. Review of Safety-Related Matters

2.2 With respect to safety-related matters, the Commission in its January 2004 notice of hearing directed that the Board determine “whether the application and record of the proceeding contain sufficient information and whether the NRC Staff’s review of the application has been adequate to support findings to be made by the Director of the Office of Nuclear Materials Safety and Safeguards.”¹⁵ CLI-04-3, 59 NRC at 12; *see also* 10 C.F.R. § 2.104(b)(2)(i). In examining the principal LES and Staff review documents in the record, the Board focused upon areas in which the Staff indicated that its prescriptive process was incomplete or was not followed, or instances when the Board’s review of the safety evaluation report (SER) and other safety-related documents led it to believe further exploration of a particular item was necessary. The Board did not, however, undertake any independent review of or attempt to verify technical results presented in the LES application or in the Staff’s SER. *See supra* note 7. Thus, we sought to determine whether the record would enable us to conclude that the Staff had a reasonable basis for its stated conclusions on safety matters, assuming that such a reasonable basis would be present if (1) the applicable standard review plan (SRP) and regulatory guides (along with other pertinent guidance documents) were specifically followed; or (2) the facts underlying a Staff determination were clear and the Staff’s decision logically flowed from those facts and the applicable regulatory guidance.

2.3 In this regard, the Board’s review of the record led it to ask for specific clarification concerning those aspects of the Staff’s safety review relating to financial assurance, nuclear criticality, materials compatibility, and fire safety. The Board’s general findings regarding the conduct of the Staff’s safety review, as well as with respect to each of those identified areas of concern, are discussed below.

¹⁵ Thus, the Board has a two-pronged obligation: (1) determine whether the application and the record of the proceeding contain sufficient information to support the Staff’s findings; and (2) determine whether the Staff’s review of the application has been sufficient to support those findings. As the Commission advised, we approached both tasks by conducting an examination of the factual and logical foundation for the Staff’s conclusions regarding the sufficiency of the application.

1. Findings Regarding Overall Adequacy of Staff Review of Safety-Related Matters

2.4 In questions 1, 2, and 3 of its January 30, 2006 order, the Board sought information on three topics relative to the general conduct of the Staff's safety review for the NEF application: (1) how NUREG-1520, the generic SRP for fuel cycle facilities, was adapted to the LES enrichment facility application; (2) what regulatory guides were found applicable and why; and (3) in situations in which a regulatory guide would, in a customary fuel cycle facility application, have been applicable but was not appropriate for the NEF, how the Staff addressed (and directed LES to address) such matters.¹⁶ More specifically, relative to these inquiries the Board requested that the Staff provide a written presentation indicating those subsections of the SRP that directly applied to the NEF application as well as a description of how, when a particular subsection of the SRP did not directly apply to the NEF application, the guidance in that subsection was adapted to apply to the NEF application, along with the rationale for that particular adaptation. In addition, the Board requested that the Staff identify each regulatory guide used relative to the LES application, the subsections of the SRP toward which it was applied, and the Staff's rationale for indicating to LES, or for finding, that such a

¹⁶ As set forth in the Board's January 30 memorandum and order, those questions provided:

1. The Board understands that the staff followed the procedures in NUREG-1520 ([SRP] for the Review of a License Application for a Fuel Cycle Facility) []. This SRP is generic for Fuel Cycle Facilities, and is not directed at Enrichment Facilities. Therefore, the staff is requested to provide the Board with a written presentation describing, subsection by subsection, how this generic SRP was adapted to apply to the LES enrichment facility application. Where a subsection was directly applicable, the testimony should so indicate ([e.g.], with regard to subsection 3.5.2.2 — this guidance is directly applicable) and where a subsection is not directly applicable, the testimony should indicate how the guidance of the particular subsection was adapted to the [NEF] application, and the rationale for that adaptation mechanism. For expedience, the presentation may make a general statement regarding subsections that were directly applicable, and discuss explicitly only those subsections that were not directly applicable.
2. The Board understands there are few, if any, Regulatory Guides that are directly applicable for an enrichment facility license application. The staff is requested to identify each Regulatory Guide used by LES, the subsections of the SRP toward which that Regulatory Guide was applied, and the rationale of the staff in indicating to LES, or in finding, that such Regulatory Guide was applicable.
3. In addition, the staff is requested to indicate each subsection for which a Regulatory Guide would, in a customary fuel cycle facility application (such as an application for a fuel fabrication facility) have been applicable, but for the NEF no Regulatory Guide was appropriate, and how the staff addressed (and directed LES to address) the matters covered by that subsection.

January 30 Order at 2-3.

regulatory guide was applicable. Finally, the Board asked that the Staff indicate each SRP subsection to which no regulatory guide applied and how the Staff addressed (and directed LES to address) those matters.¹⁷ See January 30 Order at 2-3. The purpose of this approach was to enable the Board to accomplish two critical objectives: (1) to identify those areas of review where the SRP was precisely followed, thereby providing a logical and reasonable basis for the Board to conclude, giving due deference to the Staff, that no further scrutiny would be required for that area of review; and (2) to identify those areas of review that warranted additional scrutiny, either because there was a deviation from the SRP or the applicable regulatory guidance, or because no existing regulatory guidance directly applied to the NEF application.¹⁸

a. Witnesses and Evidence Presented

2.5 In response to the Board's questions, the Staff provided testimony discussing the Staff's use of the SRP and associated guidance documents as part of its review process by Timothy Johnson, the NRC Project Manager overseeing the licensing of the proposed NEF, and William Troskoski, a Senior Technical Reviewer in the NRC's Office of Nuclear Material Safety and Safeguards (NMSS), Division of Fuel Cycle Safety and Safeguards (FCSS). Mr. Johnson's job is to coordinate the Staff's review of the NEF application, while Mr. Troskoski was the primary reviewer of the NEF ISA and ISA Summary. See NRC Staff Pre-Filed Mandatory Hearing Testimony Concerning the Use of NUREG-1520 in the Review of the License Application for the Proposed National Enrichment Facility (fol. Tr. at 3520) at 1-2 [hereinafter Staff SRP Testimony].¹⁹ Mr. Johnson has previously provided testimony before the Board, and his qualifications are outlined in the Board's second partial initial decision on environmental contentions. See LBP-06-8, 63 NRC 241, 271-72 (2006). Mr. Troskoski has a Bachelor of Science Degree in Chemical Engineering from the University of Maryland and has 30 years of nuclear experience ranging from reactor operations through the fuel cycle front end, including involvement over the last 11 years in all phases of the fuel cycle inspection and licensing process. Based on the respective background and qualifications of each of these witnesses, the Board finds them qualified to testify as expert witnesses on the subject of the Staff's fuel cycle facility review process.

¹⁷ At the evidentiary hearing, the Staff witnesses were asked specific questions regarding matters where the Staff previously had indicated that the SRP had not been expressly followed, and each of these areas was examined in depth by the Board. See Tr. at 3538-59.

¹⁸ Relatedly, at the March 2006 evidentiary hearing the Board asked the Staff to identify those areas in which the Staff had particular difficulty with regard to its review of the NEF application. See Tr. at 3547.

¹⁹ For its part, LES did not provide testimony in response to Board questions 1, 2, and 3.

2.6 Mr. Johnson explained the purpose and intended use of an SRP, which he described as a generic guidance document used for reviewing and evaluating the health, safety, and environmental protection aspects of various types of facilities. According to Mr. Johnson, an SRP, which is developed by the Staff based on often extensive interactions with the nuclear industry and members of the public,²⁰ is intended to address two fundamental needs within the Staff's review process. The SRP seeks both to (1) ensure uniformity and completeness in Staff reviews; and (2) define the scope and content of an application in an effort to ensure that a potential applicant is fully cognizant of, and thus will submit, the materials and analysis needed for Staff review. An SRP is, however, merely a guide and does not preclude an applicant from suggesting or employing alternative approaches to demonstrate compliance with applicable regulations. As such, in those instances in which such an alternative showing is made, the Staff must evaluate the adequacy of that approach. *See* Staff SRP Testimony at 3; Tr. at 3535-37.

2.7 In addition, Mr. Johnson explained the relationship between the provisions of the SRP and the Staff's regulatory guides. According to Mr. Johnson, like an SRP, a regulatory guide provides recommendations by the Staff as to how an applicant can comply with specific regulations. He noted that there are a number of regulatory guides directly applicable to an enrichment facility license application, which are referenced in the SRP. *See* Staff Exh. 51-M (NUREG-1520, "[SRP] for the Review of a License Application for a Fuel Cycle Facility" (Mar. 2002)) [hereinafter SRP]. In addition, according to Mr. Johnson, LES used some regulatory guides that are not referenced in the SRP. He maintained that although these additional regulatory guides were not developed specifically for an enrichment facility license application, these guides do contain information that can be applied to such an application. He also noted that if an applicant follows the guidance of an applicable regulatory guide, the Staff's presumption would be that the approach is acceptable. *See* Staff SRP Testimony at 18, 33; Tr. at 3535-36.

²⁰Mr. Johnson indicated that the SRP development process generally begins by assembling a team of Staff experts within specific areas, i.e., in the case of fuel cycle facilities, in such areas as chemical safety, criticality safety, decommissioning, and radiation safety. The goal of the team is to put together an outline of the kind of areas that would have to be addressed within the SRP to ensure that all the potential hazards associated with a particular licensed activity would be reviewed. From the outline, a draft SRP is developed consisting of chapters prepared by the individual Staff experts, which is then publically issued for review and comment. In the case of the SRP for fuel cycle facilities, the Staff had a number of meetings with the nuclear industry and received written comments from both the industry and some members of the public. Thereafter, following Staff consideration of the comments received, a final SRP is prepared and issued. *See* Tr. at 3531-33.

b. Findings Regarding Overall Adequacy of Staff Safety-Related Review

2.8 In performing its review of the LES application,²¹ the Staff relied primarily on NUREG-1520, the SRP for fuel cycle facility applications. *See* Staff SRP Testimony at 3; *see also* SRP. Nonetheless, as discussed above, given that the SRP used by the Staff in its review applies to license applications for nuclear fuel cycle facilities in general, without particular emphasis on uranium enrichment facilities, the Board sought clarification from the Staff as to how it adapted this SRP to apply to LES's application for a uranium enrichment facility. *See* January 30 Order at 2-3. In his testimony, Mr. Johnson declared that the hazards that will exist at the proposed NEF are similar to the types of hazards at other fuel cycle facilities for which the SRP was specifically prepared. These hazards include handling of uranium hexafluoride (UF₆) cylinders, processing of UF₆ as a gas and sometimes as a liquid, use of autoclaves for feeding and sampling uranium, nuclear criticality, equipment decontamination operations, and laboratory activities. He further explained that the relative risk presented by a particular type of facility informs the Staff's review, and Staff review of each type of fuel cycle facility license application (e.g., enrichment facility, fuel fabrication facility, or mixed-oxide (MOX) fuel fabrication facility) focuses on the specific hazards associated with the particular technology. Mr. Troskoski testified that, compared to other fuel cycle facilities, the proposed enrichment facility has the fewest potential hazards, while fuel fabrication facilities have a larger number of hazards, and a MOX fuel fabrication facility would have the highest hazard level of all 10 C.F.R. Part 70 fuel cycle facilities. *See* Staff SRP Testimony at 4-9.

2.9 Mr. Johnson also indicated that while the Staff found that all SRP chapters are applicable to the NEF application, some sections of certain chapters were not directly applicable or were modified by LES.²² *See id.* at 10. Per the Board's request, however, Mr. Johnson identified those SRP chapters applicable to the LES facility in their entirety and provided a discussion detailing (1) all subsections of the SRP that were not directly applicable as well as those regulatory guides

²¹ The NEF license application consists principally of the following documents: a safety analysis report, an emergency plan, an ER, a fundamental nuclear material control plan, a physical security plan, a safeguards contingency plan, a guard force training and qualification plan, and a standard practice and procedures plan for the protection of classified matter. LES also submitted, along with its application, an ISA summary. *See* LES Proposed Findings at 14.

²² Each SRP chapter contains seven sections covering (1) the description or purpose of the review; (2) designation of the Staff member responsible for that particular review; (3) the area(s) of review; (4) the acceptance criteria to be applied by the responsible Staff in making an acceptability determination; (5) the review procedure(s) used; (6) the findings necessary for this portion of the evaluation; and (7) references to documents that form the basis for and support the guidance provided in the SRP chapter. In addition, section 4 of each chapter prescribes relevant regulatory guidance documents issued by the Staff that may be used in performing its review work. *See, e.g.,* SRP at xi-xii.

relied upon by LES in addressing the SRP; (2) whether those regulatory guides were cited in the SRP; (3) the rationale behind the application of those regulatory guides to the NEF application; and (4) whether LES utilized the regulatory guides cited in the SRP and, if not, how LES and the Staff came to resolve those items. *See id.* at 9-38.

2.10 Based upon our review of the SER and the record of this proceeding, the Board is satisfied that, by either (1) adhering to the relevant guidance and acceptance criteria of the SRP, or (2) where deviations from or alternatives to the SRP guidance proved necessary, ensuring that those deviations or alternatives were adequately justified, the Staff utilized a reasonable and logical approach to reviewing the LES application. In sum, the Staff had a reasonable basis for its findings (i.e., those findings were, factually speaking, adequately supported and logically flowed from those facts) with respect to those portions of its safety review that were not the subject of the specific Board inquiries discussed below.²³

2. Findings Regarding Specific Areas of Concern on Safety-Related Matters

a. Findings Regarding Financial Assurance for Decommissioning Funding

2.11 As we noted above, the Board also sought further information on the matter of LES's financial assurance for decommissioning funding. In its SER for the NEF, the Staff concluded that, after reviewing LES's financial assurance plan in accordance with NUREG-1757, "Consolidated NMSS Decommissioning Guidance," in the Staff's view the plan provides sufficient decommissioning funding for the NEF even if LES is unable to meet its financial obligations to complete decommissioning and a third party is required to do so in its stead. *See* Staff Exh. 49-M at 10-15 to -16 (NUREG-1827, [SER] for the [NEF] in Lea County, New Mexico (June 2005)) [hereinafter SER]. The Board pursued this aspect of the Staff's safety review, inquiring into the basis for its conclusion regarding the adequacy of the LES decommissioning funding plan (DFP) and related financial assurance.

2.12 Specifically, in an on-the-record discussion following the conclusion of the October 2005 evidentiary hearing on contested matters, the Board issued a general inquiry regarding how LES's decommissioning financial assurance would address the possibility of a sudden increase in one of the major decommissioning

²³ In this regard, we note that in its proposed findings of fact relative to the mandatory hearing, the Staff provided an outline of the significant technical findings and conclusions reached in each of its SER chapters, detailing the myriad safety determinations that support the Staff's finding that construction and operation of the proposed NEF are consistent with protection of the public health and safety and the environment. *See* Staff Proposed Findings at 17-84.

cost elements that causes the cost to exceed the financial assurance provided, and LES decides not to bear the additional cost. *See* Tr. at 3168-69; *see also* February 8 Order at 2 n.1 & Attach. A at 2. Thereafter, during a prehearing conference with LES and the Staff, the Board elaborated on its financial assurance-related concerns with a specific illustrative example, which was memorialized in the Board's January 30 memorandum and order as follows:

The Commission has directed the staff to investigate whether amendment of 10 C.F.R. Part 61 is required to properly address the issue of disposal of depleted uranium from an enrichment facility. In the context of its decommissioning funding plan, LES will be providing a surety, in the form of a bond, covering all decommissioning costs expected during the term of that bond. The size of that bond will be determined *a priori* upon the basis of conditions at the time of issuance or renewal. The current sizing of that bond is proposed to be based upon near-surface disposal of depleted uranium. If the Commission determines, at a future date, that near-surface disposal of depleted uranium from an enrichment facility such as the NEF is no longer appropriate, how will the bond be modified to accommodate the accompanying change in decommissioning costs? What mechanisms will be put in place at the issuance of the license to ensure that LES, which is a "single purpose" entity with no assets outside its ownership of the NEF, has the wherewithal to, and actually provides, the increased bond amount?

January 30 Order at 3.

2.13 In sum, the Board requested that the parties address two basic matters: (1) the procedural means by which LES's financial instrument would be modified to accommodate potential (and potentially large) future increases in LES's decommissioning costs; and (2) the specific licensing mechanisms, if any, the Staff will use to ensure that LES has the capability to provide, and actually does provide, any increased funding amounts.

(i) RELEVANT DECOMMISSIONING FUNDING AND FINANCIAL ASSURANCE REQUIREMENTS

2.14 Pursuant to 10 C.F.R. § 70.25(a)(1), an applicant seeking a license to construct and operate a uranium enrichment facility is required to provide the Staff with a DFP, which essentially consists of a site-specific estimate of the costs for decommissioning the facility, and a description and certification of the means by which funds for decommissioning will be assured, *see id.* § 70.25(e); *see also* Tr. at 3570. The purpose of the financial assurance requirement is to provide reasonable assurance that adequate funds will be available, through appropriate mechanisms, for facility decommissioning should a licensee be unable or unwilling to complete decommissioning. *See* LES Exh. 82, at 4-1 (NUREG-1757, "Consolidated NMSS Decommissioning Guidance," vol. 3 (Sept. 2003))

at 4-1 to 4-11, A-25 to A-30). Section 70.25(f) sets forth a variety of methods by which an applicant may provide financial assurance, including (1) prepayment of funds into a segregated account prior to the start of facility operations; (2) a surety method, insurance, or other guarantee method; and (3) annual deposits into a segregated account coupled with a surety method or insurance, whereby the surety value decreases over time by the amount accrued in the segregated account. *See* 10 C.F.R. § 70.25(f)(1)-(3).

2.15 Section 70.25(e) also requires an applicant to adjust its cost estimates and associated financial assurance levels at least once every 3 years. The purpose of this periodic adjustment mechanism is to “help ensure that financial assurance obtained by licensees will not become inadequate as a result of changing disposal prices or other factors,” such as inflation or changes in facility operations. *See* LES Exh. 119, at 57,332 (Financial Assurance for Materials Licensees, 68 Fed. Reg. 57,327 (Oct. 3, 2003)) [hereinafter Financial Assurance Rule]. This periodic adjustment process is intended to capture changes to a licensee’s estimated decommissioning costs regardless of the cause, and to ensure that adequate financial assurance is provided by the licensee at any given time. It has no bearing on the initial cost estimate and associated financial assurance, but rather establishes a process by which the licensee and the NRC account for costs that are not foreseeable at the time of facility licensing.

2.16 As discussed further below, LES intends to use a surety bond method that guarantees payment by a suitably qualified third party should LES be unable or unwilling to complete decommissioning. NUREG-1757, which provides guidance to the Staff and applicants/licensees regarding, among other things, financial assurance requirements and the related funding mechanisms, describes a surety bond as follows:

A payment surety bond (or surety bond) is a guarantee by a surety company (or surety) that it will fund decommissioning activities if the principal (i.e., the licensee) fails to do so. In issuing a surety bond, the surety company becomes “jointly and severally” liable for the guaranteed payment, meaning that the surety assumes the licensee’s obligation to fund decommissioning as its own and can be sued jointly with the licensee for the obligation. Consequently, most surety bonds include an indemnification provision that requires the principal to reimburse the surety for costs incurred in satisfaction of the principal’s obligations.

LES Exh. 125-M, at A-88 (NUREG-1757, “Consolidated NMSS Decommissioning Guidance,” vol. 3 (Sept. 2003) at 4-14 to 4-18, 4-23 to 4-24, 4-32 to 4-34, A-1 to A-18, A-88 to A-95, A-153 to A-168) [hereinafter NUREG-1757]. A surety

bond must be funded in an amount greater than or equal to the decommissioning cost estimate set forth in the licensee's DFP. *See* 10 C.F.R. § 70.25(e).²⁴

(ii) WITNESSES AND EVIDENCE PRESENTED

2.17 To address the Board's financial assurance queries, the Staff and LES each presented witnesses who provided written and oral testimony. For its part, the Staff proffered a panel of two witnesses: (1) Timothy C. Johnson, NRC Project Manager overseeing the licensing of the proposed NEF; and (2) Craig Dean, a consultant for ICF Consulting, providing testimony under a technical assistance contract with the NRC. As relevant here, Mr. Johnson's review of the LES application focused on decommissioning funding and waste management matters. Mr. Dean assisted the Staff in reviewing the proposed DFP for the NEF, and was the principal author of the portion of the Staff's SER that evaluated LES's financial assurance mechanism. *See* NRC Staff Pre-Filed Mandatory Hearing Testimony Regarding Financial Assurance (fol. Tr. at 3562) at 1-2 [hereinafter Staff Financial Assurance Testimony]. Mr. Johnson and Mr. Dean have each previously provided testimony before the Board, and their qualifications are outlined in the Board's second partial initial decision on environmental contentions. *See* LBP-06-8, 63 NRC at 271-72, 272-73.

2.18 LES proffered one witness on this matter, Rod M. Krich, LES Vice President of Licensing, Safety, and Nuclear Engineering. *See* Applicant's Prefiled Testimony in Mandatory Hearing Concerning Financial Assurance (Safety Matter No. 4) (fol. Tr. at 3566) [hereinafter LES Financial Assurance Testimony]. Mr. Krich has likewise testified before this Board on several prior occasions, and his background and qualifications are discussed in the Board's first partial initial decision on environmental contentions. *See* LBP-05-13, 61 NRC 385, 420-21 (2005).

2.19 Based on the foregoing, and the respective background and experience of the proffered witnesses, the Board finds that each of these witnesses is qualified to testify as an expert witness on the subject of LES's financial assurance for decommissioning funding relative to the NEF.

2.20 In his written testimony on behalf of LES relative to these matters, Mr. Krich noted that LES has submitted to the NRC drafts of its surety bond

²⁴ Section 70.25(f) sets forth several additional conditions that must be included in any such surety bond. First, the surety bond must either be open-ended or written for a specified term subject to automatic renewal, and must specify that the full face value will be automatically paid to the NRC prior to expiration if the licensee does not provide an acceptable replacement mechanism within a specified period of time. *See* 10 C.F.R. § 70.25(f)(2)(i). Second, the surety bond must be directly payable to an acceptable standby trust that will be used to fund decommissioning if the licensee defaults on its decommissioning obligation. *See id.* § 70.25(f)(2)(ii); *see also* NUREG-1757, at A-88. Finally, the surety bond must remain in effect until license termination. *See* 10 C.F.R. § 70.25(f)(2)(iii).

and the related documentation that conform to the model documents contained in NUREG-1757, and pointed out that final, executed originals of the instruments would have to be delivered to the NRC prior to LES receiving NRC-regulated materials at the NEF. *See* LES Financial Assurance Testimony at 6. In addition, Mr. Krich stated that should LES encounter a situation, such as the deep disposal scenario described by the Board, in which its decommissioning cost estimates increase substantially, LES will be able to accommodate any shortfalls in its surety bond amount by either (1) revising that bond to assure the increased cost; or (2) obtaining another appropriate financial assurance instrument to fill the gap. *See id.* To that end, he explained, LES's surety bond will include a provision that permits LES to adjust the bond amount on an annual basis. *See id.*

2.21 With respect to the Board's related concern about whether LES would in fact have the financial wherewithal and willingness to provide any necessary increased bond amount, or some other supplemental financial assurance, in the event that an increase becomes necessary, Mr. Krich stated that "[w]hile LES is a single purpose entity, the LES partners, particularly principal general partner Urenco, clearly are corporations of worth with sizable assets and cash flow." *Id.* at 9. According to Mr. Krich, the partners' investment in the NEF will be financed in part through an appropriate debt structure, but it will also involve a significant equity investment on their part, i.e., a minimum of 30% of the total project cost of approximately \$1.5 billion.²⁵ *See id.* at 9-10; Tr. at 3574, 3583. Mr. Krich further explained his understanding that any surety bond issued on LES's behalf will essentially contain a parent guaranty²⁶ that requires Urenco, as LES's parent company,²⁷ to reimburse the issuer of the bond should the NRC

²⁵The Staff's SER for the NEF declares that the total cost for the NEF project is \$1.2 billion in 2002 dollars. *See* SER at 1-6. In his testimony, however, Mr. Krich referred to the total capital cost of the NEF project as, variously, "in excess of \$1 billion," LES Financial Assurance Testimony at 11, and "[o]n the order of about 1.5 billion dollars," *see* Tr. at 3574, 3583. Given that LES anticipates beginning phased construction in late 2006 and continuing through approximately 2013, *see, e.g.*, Staff Exh. 47, at xxiii (NUREG-1790, "Final Environmental Impact Statement for the Proposed [NEF] in Lea County, New Mexico," vols. 1 & 2 (June 2005)), and the increases that likely will occur from the year 2002 dollar estimate, for the purposes of this discussion we assume that the total capital investment for the NEF will be approximately \$1.5 billion.

²⁶In Mr. Krich's words, "any surety bond issued on behalf of LES will contain an indemnification provision, or something comparable, requiring that Urenco, as a parent company to LES, be able to meet specified performance requirements or 'covenants.'" LES Financial Assurance Testimony at 10.

²⁷By way of background, LES is a limited partnership whose singular business purpose is to provide uranium enrichment services for commercial nuclear power plants. Until very recently, LES had two general partners, Urenco Investments, Inc., and Westinghouse Enrichment Company, LLC. On March 3, 2006, however, Urenco bought the Westinghouse interest in LES to become the sole general partner in LES, with a 90% interest in the company. The remaining 10% interest is held by

(Continued)

draw on it because LES defaulted on its decommissioning obligations, a factor he viewed as contributing to LES's ability to secure a substantially larger surety bond amount than LES could obtain without that guaranty. *See* LES Financial Assurance Testimony at 10-11; Tr. at 3572-73. Mr. Krich further pointed out that LES anticipates generating substantial revenues of its own once the NEF is up and running, which would provide another source of credit for any increases in the size of the anticipated decommissioning surety bond. *See* LES Financial Assurance Testimony at 10. In support of that statement, Mr. Krich pointed to the contracts that LES has secured with nuclear utilities to provide them with enriched uranium, which currently account for approximately 80% of the NEF's output during the first 10 years of production. *See id.* In sum, Mr. Krich declared, given the significant financial investment in the NEF by both LES and its parents, and the fact that LES expects the NEF project to be a "profitable venture, LES and its partner-owners have every incentive to see the project through to its completion." *See id.* at 11.

2.22 The Staff witnesses made similar points relative to LES's financial solvency, noting that "[t]he size of the financial commitment necessary to build the enrichment facility and the likelihood that it will have a substantial base of firm contracts for its services may mean that its solvency and continued operation are somewhat more assured than an ordinary commercial venture." Staff Financial Assurance Testimony at 7. Further, according to Mr. Johnson and Mr. Dean, "the value of the enrichment facility, taking into consideration all of its risk, obligations, and decommissioning requirements (including disposition of accumulated tails), but also including its license, physical plant, and potential for future business" make it likely that third parties would have interest in acquiring the NEF and its productive assets in the event that LES made a decision to abandon the facility. *See id.* at 7-8. Thus, the testimony of the Staff and LES witnesses apprises the Board that LES's owners will have a sizeable equity investment in the NEF by the time the first phase of construction is completed, and the NEF project itself is expected to have a sizeable net positive value, and be a profitable venture, once operations and production have begun. *See, e.g., id.*; LES Financial Assurance Testimony at 9-11; Tr. at 3582-84. As discussed further below, the sum of these factors leads to a reasonably based conclusion that the economic circumstances associated with the construction and operation of the NEF fully

companies representing three domestic electric utilities, namely Entergy Corp., Duke Energy Corp., and Exelon Generation Co. *See* Staff Exh. 47, at 1-21 to -22 (NUREG-1790, "Final Environmental Impact Statement for the Proposed [NEF] in Lea County, New Mexico," vols. 1 & 2 (June 2005)); Letter from J. Curtiss, Winston & Strawn, to Licensing Board (Mar. 3, 2006) at 1-2 (ADAMS Accession No. ML060660126) (updating LES ownership information). At the evidentiary hearing, both Mr. Johnson, on behalf of the Staff, and Mr. Krich, on behalf of LES, stated that the buyout should not have any effect on the status of LES's financial assurance. *See* Tr. at 3581-82.

support the proposition that decommissioning funding would be available even in the extreme scenario postulated by the Board that suggests a financial situation in which LES might consider abandoning the facility.

2.23 In addition to the mechanisms LES might utilize to modify its financial assurance instrument(s), if necessary, and the potential financial support for such modifications, the LES and Staff witnesses each provided testimony with regard to the licensing/regulatory mechanisms in place to ensure LES provides increased financial assurance to cover any increased cost estimates.

2.24 As Staff witnesses Johnson and Dean explained in their written testimony, the Staff evaluates an applicant's DFP, which contains the applicant's initial decommissioning cost estimate, in accordance with the guidance in NUREG-1757. *See* Staff Financial Assurance Testimony at 3. That review is based on an assumption that the facility will be operating under routine conditions, including operating under existing regulations. Thereafter, any changes that affect that initial decommissioning cost estimate and the accompanying financial assurance, including changes to agency regulations, are expected to be accounted for as part of the required periodic adjustment. *See id.* at 3, 4-5; Tr. at 3571, 3574. This process, Mr. Johnson and Mr. Dean pointed out, places the Licensee under a continuing duty to fully fund its financial assurance obligation regardless of any major or minor changes that might occur during the license period, including regulatory changes, increases in decommissioning costs, or changes in the Licensee's financial state. *See* Staff Financial Assurance Testimony at 3.

2.25 Mr. Krich explained in some detail how LES will comply with the section 70.25 periodic adjustment requirement. First, he noted that LES will revise its decommissioning cost estimates and corresponding financial assurance instruments at regular intervals, as required by section 70.25(e). *See* LES Financial Assurance Testimony at 7. More specifically, by license condition LES will initially be required to provide financial assurance in an amount sufficient to fully fund facility decommissioning and to cover the cost of dispositioning the depleted uranium tails generated at the NEF during the first 3 years of operation. *See id.* (citing SER at 10-14 to -15). Thereafter, LES's license will require it to (1) *update its facility decommissioning cost estimate on a triennial basis*, and (2) *update its depleted uranium dispositioning cost estimate annually on a forward-looking basis* to ensure the financial assurance reflects the current projected inventory of depleted uranium at the NEF. *See id.* (emphasis added) (citing SER at 10-14 to -15). According to Mr. Krich, this periodic update process will ensure that if one of the major elements of LES's decommissioning cost estimate, such as depleted uranium disposal, increases substantially, LES will be required by license condition to adjust its financial assurance instruments to cover that increased cost. *See id.* In fact, as Mr. Krich pointed out, in explaining the logic behind the periodic update requirement the Commission explicitly referenced the

need to account for fluctuations in waste disposal costs. *See id.* at 8 (citing Financial Assurance Rule at 57,332).

2.26 This approach, whereby LES adjusts its dispositioning cost estimates and related financial assurance levels on a frequent and prospective basis, explained Mr. Johnson and Mr. Dean, will permit the NRC to carefully and regularly track whether the size of the funding instrument parallels actual decommissioning funding needs. *See* Staff Financial Assurance Testimony at 8. Similarly, they asserted, because any changes to the regulations governing, for example, disposal of depleted uranium would likely occur early in the life of the NEF, LES would have a substantial amount of time “for the buildup of the necessary funds.” *See id.*

2.27 Finally, witnesses for the Staff and LES explained that should the unlikely circumstance arise whereby a substantial increase in costs occurs and LES is unable or unwilling to meet its financial assurance and decommissioning funding requirements, the NRC has ample enforcement authority to address such a scenario. *See, e.g., id.* at 9; Tr. at 3576. As Mr. Krich pointed out, any failure of LES to adjust its financial assurance instrument(s) would open LES up to enforcement action by the NRC pursuant to 10 C.F.R. § 2.202. *See* LES Financial Assurance Testimony at 7. These enforcement powers, according to the Staff and LES witnesses, include suspension of facility operations and could potentially result in the revocation of LES’s operating license. *See* Staff Financial Assurance Testimony at 9; LES Financial Assurance Testimony at 7. As a last resort, Staff witnesses Johnson and Dean explained, the NRC can request appropriations from Congress to fund DOE dispositioning of any depleted uranium tails remaining at the NEF site. *See* Staff Financial Assurance Testimony at 9.

(iii) FINANCIAL ASSURANCE-RELATED FINDINGS

2.28 Notwithstanding this inquiry relative to the posited extreme scenario whereby a substantial increase in LES’s decommissioning funding cost estimates occurs as a result of some unforeseen circumstance, the focus of the financial assurance-related findings the Board must make is on whether the Staff had a reasonable basis (i.e., factual and logical support) for finding sufficient LES’s decommissioning funding plan and related financial assurance *on the basis of the current regulations and circumstances*. Several factors lead the Board to conclude that the Staff had a reasonable basis in so finding. First, because LES itself does not have substantial assets, Urenco, as LES’s sole general partner, as well as LES’s additional investors, will have an equity investment in the NEF on the order of \$450 million (i.e., a minimum of 30% of approximately \$1.5 billion). *See, e.g.,* Tr. at 3575-78. Second, as Mr. Krich testified, LES has at this point secured contracts with several nuclear utilities to provide them with enriched uranium from the NEF that currently account for about 80% of the NEF’s

anticipated production output for the first 10 years. Therefore, the NEF is expected to produce sufficient revenues once the facility becomes operational so that the facility can reasonably be expected to become a profitable venture. Finally, LES's obligation to repay the issuer of the surety bond, should the NRC be required to draw on that bond, is supported by its parent company Urenco. Taken together, these considerations support the Staff's finding that, *under routine conditions*, including the regulations as currently in force, LES's decommissioning plan and accompanying financial assurance provide reasonable assurance for protection of the public health and safety.

2.29 With regard to the contingent extreme scenario posited here by the Board, we find that the Staff similarly had a reasonable basis for its view that LES has the financial wherewithal, and can reasonably be expected to have the financial incentive, to provide a substantially increased bond amount if such additional funding becomes necessary. First, as the Staff witnesses explained, the NRC has extensive enforcement mechanisms at its disposal that it could employ to ensure that LES provides the additional funding. Second, both the Staff and LES noted that the large capital investment by LES/Urenco militates that LES is unlikely to abandon the NEF.²⁸ In the Board's view, such a conclusion by the Staff has a substantial footing in logic, in that Urenco and LES's minority investors will have something on the order of a half-billion-dollar equity investment in the NEF, and the NEF can reasonably be expected to generate significant revenues and profits to LES. It is logical, then, that unless the required incremental funding is greater than something on the order of \$450 million, it is unlikely that LES (or its investors) would make a determination that financial considerations mandate abandoning the facility. *See* Tr. at 3577-78.

2.30 Based upon the Staff and LES presentations on the financial assurance matters at issue, the Board finds that the view that the current LES financial assurance mechanisms, taken together with the reasonable expected value of the NEF as a going concern and the procedural mechanisms available to the NRC, is adequately grounded in logic and fact so as to form the basis for the proposition that there is reasonable assurance that sufficient funds would be available to support NEF decommissioning (including dispositioning depleted uranium waste) by a qualified third party in the unlikely event that LES is unable or unwilling to complete decommissioning. In sum, we find that the Staff's review of the LES decommissioning funding plan and related financial assurance has a

²⁸ As Staff counsel pointed out, this can be contrasted with the circumstances in which the Staff has typically had to take enforcement action based on a funding shortfall, in that those facilities are typically very small and do not require a large capital investment, and the licensee has no substantial financial interest in the facility. *See* Tr. at 3578; *see also* Staff Financial Assurance Testimony at 4. In other words, the Staff "would not expect a company like LES to abandon this facility given the capital investment involved." Tr. at 3578.

reasonable basis in logic and fact and, therefore, provides an adequate foundation for this portion of the Staff's NEF licensing determination.

b. Findings Regarding Department of Energy Dispositioning Cost Estimate

2.31 As mentioned above, *see supra* Part I.C, on April 6, 2006, the Staff filed a motion to supplement the evidentiary record of the uncontested portion of this proceeding, requesting that the Board admit Staff Exhibit 77-M, "Louisiana Energy Services National Enrichment Facility Safety Evaluation Report Supplement on Decommissioning Financial Assurance," to the record. *See* Staff Motion To Supplement. The Board was first made aware that the Staff had not completed its review of the DOE cost estimates for dispositioning NEF-generated depleted uranium waste at the February 2006 evidentiary hearing on contested matters. *See* Tr. at 3269-70. Thereafter, at the March 2006 mandatory evidentiary hearing, the Board inquired about the status of the Staff's review, and was informed that the Staff was in the process of developing an SER supplement to address the DOE cost estimate matters. *See* Tr. at 3580. Because it contained information relevant to the uncontested portion of this proceeding, on April 11, 2006, the Board admitted Staff Exhibit 77-M to the evidentiary record of the mandatory hearing. *See* Licensing Board Memorandum and Order (Supplementing and Closing Evidentiary Record of Mandatory Hearing) (Apr. 11, 2006) at 1-2 (unpublished).

2.32 The DOE cost estimates relied upon by the Staff in its SER supplement differ from those previously provided in the full SER and Staff Exh. 50-M, "[LES NEF SER] Summary." The cost estimate originally provided to LES by DOE totaled \$4.91 per kilogram uranium (kgU) for depleted uranium disposition, which was higher than LES's estimate of \$4.68/kgU for private sector disposition of the depleted uranium waste. *See* SER at 10-11 to -12. Subsequently, DOE revised its cost estimate to reflect a calculation error, and provided LES with a new estimate of \$4.68/kgU. *See* Staff Exh. 77-M, encl. at 2-3 ([LES NEF SER] Supplement on Decommissioning Financial Assurance (Apr. 6, 2006)) [hereinafter SER Supplement]. Because LES, in the interim, had committed to an additional \$0.60/kgU for its private sector cost estimate for depleted uranium dispositioning for a revised total of \$5.28/kgU, that private cost estimate is now greater than the revised DOE cost estimate. *See id.* at 3-4. According to the SER supplement, the Staff reviewed the revised DOE cost estimate and determined that all appropriate dispositioning costs were considered by DOE and that the cost estimate was documented and reasonable. *See id.* at 1, 3-4.

2.33 Because LES's private dispositioning cost estimate now exceeds the DOE cost estimate, the Staff concluded that LES had adequately supported the proposition that sufficient funding would be available at any time during the life of the NEF to transfer depleted uranium from the NEF to DOE for dispositioning should LES be unwilling or unable to complete dispositioning. *See id.* at 4. To

ensure that this will always be the case, i.e., that LES's private dispositioning cost estimate will always be greater than or equal to the DOE cost estimate so as to ensure funding for the DOE strategy at any point during the life of the facility, the Staff imposed several revised license conditions on any license to construct and operate the NEF. *See id.* Namely, the Staff is requiring that LES (1) include in its annual update to its dispositioning cost estimate an updated DOE cost estimate; (2) revise its financial assurance instrument each year to reflect any applicable changes to LES's decommissioning cost estimate, including the DOE dispositioning cost estimate; and (3) provide financial assurance for depleted uranium dispositioning in an amount at least equal to the updated DOE cost estimate plus a 25% contingency factor.²⁹ *See id.* at 4-5.

²⁹The full text of the revised NEF license conditions reads as follows:

1. The licensee shall provide final copies of the proposed financial assurance instruments to NRC for review at least six months prior to the planned date for obtaining licensed material, and provide to NRC final executed copies of the reviewed financial assurance instruments prior to the receipt of licensed material. The amount of the financial assurance instrument shall be updated to current year dollars and include any applicable changes to the decommissioning cost estimate. The decommissioning cost estimate shall include an update to the U.S. Department of Energy (DOE) depleted uranium disposition cost estimate with a 25 percent contingency factor. The total amount funded for depleted uranium disposition shall be no less than the updated DOE cost estimate with the 25 percent contingency factor.
2. The Decommissioning Funding Plan cost estimate shall be updated as follows:
 - a. In the first executed financial assurance instrument submitted prior to receipt of licensed material, the licensee shall provide full funding for decontamination and decommissioning of the full-size facility.
 - b. In the first executed financial assurance instrument submitted prior to receipt of licensed material, the licensee shall provide funding for the disposition of depleted uranium tails in an amount needed to disposition the first three years of depleted uranium tails generation.
 - c. Subsequent updated decommissioning funding estimates and revised funding instruments for facility decommissioning shall be provided, at a minimum, every three years. Any proposed reduction based on changes to module phase-in shall be submitted six months prior to the scheduled operation of the facility module.
 - d. Subsequent updated decommissioning cost estimates and revised funding instruments for depleted uranium disposition shall be provided annually on a forward-looking basis to reflect projections of depleted uranium byproduct generation. Each updated depleted uranium disposition cost estimate shall include an update to the DOE depleted uranium disposition cost estimate. The total amount funded for depleted uranium disposition shall be no less than the updated DOE cost estimate with a 25 percent contingency factor.

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2.34 Based on its evaluation of LES's financial assurance plan and the updated DOE cost estimate, the Staff concluded that "the applicant's financial assurance for decommissioning based on the DOE cost estimate for dispositioning depleted uranium complies with NRC's regulations and provides reasonable assurance of protection for workers, the public, and the environment." *Id.* at 5. In other words, with its SER supplement the Staff has made the DOE dispositioning cost estimate the baseline for that portion of LES's required decommissioning funding and corresponding financial assurance.

2.35 In our third partial initial decision on contested matters in this proceeding, the Board found the DOE cost estimate "sufficiently reliable to provide the basis for an initial estimate of the portion of decommissioning funding for the NEF associated with disposition of the DUF₆ produced by the NEF," LBP-06-15, 63 NRC at 630 (2006), and concluded that "the Staff must utilize, in toto, the cost estimates attendant to the [DOE] 'plausible strategy' " as a basis for LES's financial assurance for dispositioning depleted uranium, *see id.* at 684. We therefore agree with the Staff that issuance of the NEF license must be conditioned upon LES providing decommissioning funding in an amount sufficient to cover, at any point during the life of the NEF, the cost of DOE providing dispositioning services for the depleted uranium generated at the NEF pursuant to section 3113 of the USEC Privatization Act, 42 U.S.C. § 2297h-11. In sum, the Board finds that the Staff's review of this aspect of LES's decommissioning funding plan and associated financial assurance is sufficient, and that the Staff had a reasonable basis for concluding that the DOE cost estimate is reasonable and reliable and should provide the baseline for that portion of LES's decommissioning funding/financial assurance associated with dispositioning depleted uranium from the NEF.³⁰

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3. The Decommissioning Funding Plan cost estimates shall be provided to NRC for review, and subsequently, after resolution of any NRC comments, final executed copies of the financial assurance instruments shall be provided to NRC.

SER Supplement at 4-5.

³⁰We also note that in its settlement agreement with the two New Mexico state governmental entities that initially were parties to the contested portion of this proceeding, LES agreed to "provide financial assurance in the minimum initial amount of \$7.15/kgU for the disposition of DUF₆ situated at the NEF from the date when financial assurance is required by the NRC," Licensing Board Memorandum and Order (Approving Settlement Agreement and Accepting Withdrawal of Parties) (Aug. 12, 2005), Attach. at 5 (unpublished), even though that amount is "over and above the amount that LES maintains is required by applicable NRC regulatory requirements and guidance," *id.* In this regard, however, the Staff indicated in its response to the motion for approval of the settlement agreement that the NRC only has authority to enforce the terms of any NEF license and the conditions thereto, *not* the terms of any agreement between LES and the New Mexico parties. *See* NRC Staff Response to Joint Motion for Approval of Settlement Agreement (July 29, 2005) at 3. Thus, while LES might provide financial

(Continued)

c. *Findings Regarding Nuclear Criticality*

2.36 The Board posed several general questions to the Staff and LES with respect to nuclear criticality at the conclusion of the October 2005 evidentiary hearing on contested matters, which were intended to address two basic concerns: (1) the validity of the methodology and assumptions used by the Applicant and the Staff to validate and verify the MONK 8A computer code used to perform criticality analyses; and (2) the probability of a significant water vapor intrusion event at the NEF such as would impact criticality safety. *See* Tr. at 3171-73; February 8 Order, Attach. A at 2. With regard to the second area of concern, the Board requested that the parties provide a quantitative analysis, preferably in the form of a fault-tree diagram, of the probability of significant water vapor intrusion with respect to criticality safety.³¹ Relative to the first area of concern, the Board further elaborated on its specific concerns during a January 25, 2006 prehearing conference with the Staff and LES, and memorialized its questions as follows:

5. From Table 7-3 of the Monk 8 Verification/Validation report, revision 1, the Board sees that the criticality calculations for the items relied on for safety (IROFS) concerning pipe works involve hydrogen to uranium (H/U) ratios from 12 to 14. How does the staff compute the bias allowance for these cases, given the spreads indicated in Figure 6.3 of that report? Is the number in the [SER] correct?
6. How does the staff justify acceptance of IROFS for [DUF₆] mixtures with no hydrogen (except in the reflector) when, according to the second full paragraph in section 6.1 (page 29) of the report, the H/U ratio varied between 0.102 to 1378 in the calculations used for verification?
7. The staff is requested to correlate the IROFS discussed in the SER with the cases listed in Table 7-3 of the report. Are all IROFS adequately represented in the table?
8. The Board requests that LES provide information regarding the following three matters:
 - (a) Which cases in Table 7-3 of the Monk 8 report correspond to no hydrogen moderation, i.e., DUF₆ only?
 - (b) Which critical experiments were analyzed to validate the code for such cases?

assurance funding in the amount agreed to by LES and the New Mexico parties, neither the Staff (nor the Board based on the record before it) would at this juncture require LES to provide funding in the amount specified by those parties in their July 2005 settlement agreement.

³¹ The related topic of the probability and consequences of a significant water vapor intrusion event relative to the construction materials in the NEF (e.g., aluminum tubing, seals) is discussed *infra* Part II.A.2.d.

- (c) In performing such validation work, how were the unresolved resonances treated?

January 30 Order at 3; *see also* February 8 Order, Attach. A at 2.

(i) CRITICALITY CONCEPTS AND APPLICABLE REGULATORY REQUIREMENTS

2.37 Subpart H of 10 C.F.R. Part 70 requires LES, as an applicant for authorization “to possess greater than a critical mass of special nuclear material, and engage[] in . . . uranium enrichment,” to comply with certain performance requirements regarding nuclear criticality safety (NCS). *See* 10 C.F.R. § 70.60. Specifically, 10 C.F.R. § 70.61(a) requires an applicant to evaluate, in its ISA performed in accordance with 10 C.F.R. § 70.62, its compliance with performance requirements set forth in section 70.61(b) through (d). Section 70.61(b) requires an applicant to limit, through the application of engineered and/or administrative controls, the risk of credible high-consequence events so as to make them “highly unlikely,” or to make their consequences less severe than certain established dose and exposure limits set forth in section 70.61(b)(1)-(4). For its part, section 70.61(c) imposes similar requirements with regard to limitation of the risk posed by each credible intermediate-consequence event so as to make the event “unlikely” or its consequences less severe than dose and exposure limits set forth in section 70.61(c)(1)-(4). In addition, section 70.61(d) requires that the risks of criticality accidents be limited by assuring that all nuclear processes are subcritical under normal and credible abnormal conditions, including the use of an approved margin of subcriticality, and mandates that preventive measures be the primary means of protection against criticality accidents. Moreover, section 70.61(e) requires that each engineered or administrative control/control system necessary to comply with paragraphs (b) through (d) be designated an IROFS. Finally, 10 C.F.R. § 70.64(a)(9) mandates that the design of new facilities “provide for criticality control including adherence to the double contingency principle,” i.e., that “process designs should incorporate sufficient factors of safety to require at least two unlikely, independent, and concurrent changes in process conditions before a criticality accident is possible,” *id.* § 70.4. An applicant must provide documentation of its compliance with the section 70.61 performance requirements in its ISA Summary. *See id.* § 70.65(b)(4); *see also* Staff Exh. 58-M ([NEF ISA] Summary, vols. 1 & 2 (Apr. 2005)).

2.38 Two Staff guidance documents, though not legally binding, provide further information regarding the relevant criticality safety regulations. The Staff published an interim Staff guidance (ISG) document, “Nuclear Criticality Safety Performance Requirements and Double Contingency Principle,” to provide additional information about the relationship between the various subsections of 10 C.F.R. § 70.61. *See* Staff Exh. 59-M (ISG-03, [NCS] Performance Requirements

and Double Contingency Principle (Feb. 17, 2005)). ISG-03 explains that, due to the risk-informed, performance-based nature of section 70.61(b) and (c), in theory a facility operator could have an inadvertent criticality, but still be in compliance with the dose limits set forth in paragraphs (b) and (c). Thus, the guidance explains, the purpose of section 70.61(d) is to ensure that all nuclear processes are designed to remain subcritical under normal and credible abnormal conditions. *See id.* at 2, 4-5. Chapter 3 of the SRP provides additional guidance concerning the content of the ISA Summary and how an applicant can comply with section 70.65(b)(4), which, as noted above, requires an applicant to present information that demonstrates compliance with section 70.61. *See SRP ch. 3.* Stated generally, an applicant must identify and assess all credible accident sequences and identify appropriate mitigation measures, commonly referred to as IROFS, to prevent or mitigate the consequences of such accidents. *See id.* at 3-4. In addition, SRP § 5.4.3.4.4 provides guidance with regard to section 70.61(d) compliance, and essentially states that an applicant's commitment to comply with regulatory requirements, including use of appropriate controls, standards, and subcritical limits, as well as its implementation of a double contingency protection program, should be considered acceptable for the purpose of meeting section 70.61(d) standards. *See id.* at 5-15 to -16.

(ii) WITNESSES AND EVIDENCE PRESENTED

2.39 The Staff presented a panel of three witnesses to address the Board's criticality-related questions: (1) William Troskoski, Senior Technical Reviewer, NMSS, FCSS; (2) Harry Felsher, Nuclear Process Engineer, NMSS, FCSS; and (3) Kevin Morrissey, Nuclear Process Engineer, NMSS, FCSS. *See NRC Staff Pre-Filed Mandatory Hearing Testimony Concerning Criticality (fol. Tr. at 3588) at 1 [hereinafter Staff Criticality Testimony].* Mr. Troskoski was the primary reviewer of LES's ISA and ISA Summary. He previously presented testimony before the Board in this mandatory hearing portion of the proceeding, and his background and qualifications are discussed *supra* Part II.A.1.a(ii).

2.40 Mr. Felsher received a Bachelor of Science in Engineering from the University of Maryland, and a Master of Science in Nuclear Engineering from Texas A&M University and Ohio State University. He has been employed as a nuclear process engineer (criticality) by the NRC for almost 10 years, during which time he has participated in approximately sixty licensing reviews for 10 C.F.R. Parts 70 and 76 licensees, and is qualified as an NRC NCS License Reviewer and an NRC NCS Inspector for 10 C.F.R. Parts 70 and 76 licensees. In addition, Mr. Felsher drafted the NCS chapter of the SRP, and was the reviewer of LES's NCS application information as documented in Chapter 5.0 of the SER. *See Staff Criticality Testimony at 2 & attached resume.*

2.41 Mr. Morrissey holds a Bachelor of Science in Mathematics from the

University of Massachusetts and has completed graduate courses in Nuclear Reactor Physics at the Massachusetts Institute of Technology and University of Lowell, and has more than 30 years of experience in the nuclear engineering analysis field, including expertise in a wide range of nuclear analysis methods, nuclear reactor operational support and licensing, reactor core design, criticality, and dose rate calculations. As a nuclear process engineer at the NRC, he is responsible for review of fuel cycle facility license applications and amendments, as well as ISA Summary reviews and many other NCS-related matters. Relative to the NEF application, Mr. Morrissey was assigned to provide technical assistance for the ISA Summary review, as well as knowledge of the NEF processes. *See id.* & attached resume.

2.42 For its part, LES presented a panel of five witnesses: (1) Rod M. Krich, LES Vice President of Licensing, Safety, and Nuclear Engineering; (2) Daniel G. Green, a Senior Consulting Engineer with EXCEL Services Corporation; (3) Allan J. Brown, Design and Licensing Consultant for Urenco (Capenhurst) Ltd., and Urenco Assistant Project Manager for the NEF project; (4) Barbara Y. Hubbard, a Supervisory/Advisory Engineer for Framatome ANP; and (5) David M. Pepe, a Principal Engineer for Framatome ANP. *See Applicant's Prefiled Testimony in Mandatory Hearing Concerning Matters Related to Nuclear Criticality (Safety Matter Nos. 5-8 and October Hearing Questions 6.b, 6.e, 6.f, and 6.g) (fol. Tr. at 3596) at 1-2 [hereinafter LES Criticality Testimony].* Mr. Krich's background and qualifications have been discussed by this Board on several prior occasions. *See supra* Part II.A.2.a(ii).

2.43 Mr. Green, for his part, holds a Bachelor of Science and a Master of Science in nuclear engineering from Kansas State University, and has approximately 25 years of experience in the nuclear industry, including experience with licensing, engineering, and regulatory matters. He has been employed as a consulting engineer with EXCEL Services Corporation for approximately 15 years, during which time he has provided consulting services to many utilities. Mr. Green has acted as a consultant to LES on engineering and regulatory matters and has assisted in the development of the NEF application and LES responses to Staff Requests for Additional Information, and, as relevant here, is familiar with those portions of the LES application relating to nuclear criticality. *See LES Criticality Testimony at 2-3, 4 & attached resume.*

2.44 Mr. Brown received a Bachelor of Science degree (with Honors) from the University of Liverpool in England, followed by several years of graduate-level research in nuclear structure physics, and has 30 years of experience related to gas centrifuge uranium enrichment, including employment with British Nuclear Fuels during which time he served as, among other things, Design Liaison Officer for the first LES application to construct and operate a uranium enrichment facility in Claiborne Parish, Louisiana. For the last 15 years he has been employed by Urenco in various design-related positions, including his current position as

Design and Licensing Consultant. Relative to the NEF project, Mr. Brown serves as the core technology/design manager, and is responsible for overseeing all nonarchitectural and engineering design work for the NEF, including providing technical assistance and consultation during the design and initial operating phases of the NEF and conducting technical reviews of NEF design activities to ensure they are in line with the Urenco reference design information on which the NEF is based. *See id.* at 3, 4 & attached resume.

2.45 Ms. Hubbard received a Bachelor of Science in Nuclear Engineering from the Georgia Institute of Technology, and a Master of Science in Energy Engineering (Nuclear Option) from the University of Massachusetts, Lowell, and has more than 25 years of experience in the nuclear energy industry as a nuclear engineer and reactor physicist, including experience with core reload analyses, neutronics benchmarking, and analyses relating to spent fuel criticality. As supervisor of the Nuclear and Radiation Engineering group at Framatome, Ms. Hubbard has overseen nuclear and radiological analyses performed for various clients, including LES, and has been involved in the NEF criticality analyses since 2004. *See id.* at 3, 5 & attached resume.

2.46 Finally, Mr. Pepe has a Bachelor of Science in Nuclear Engineering from Rensselaer Polytechnic Institute, and 29 years of experience in the nuclear engineering field, including application of ISA methodology and preparation of safety and engineering analyses for nuclear steam supply systems and other secondary systems. As a principal engineer with Framatome, he has provided technical and engineering support regarding various portions of the NEF application and, as ISA Manager, contributed substantially to the preparation of the NEF ISA. *See id.* & attached resume.

2.47 Based on the foregoing, and the background and experience of the proffered Staff and LES witnesses, the Board finds that each of these witnesses is qualified to testify as an expert witness on the subject of nuclear criticality safety at the NEF plant.

2.48 To provide background for the criticality discussion requested by the Board, in their written testimony the Staff witnesses described several basic criticality concepts. According to the Staff testimony, criticality describes the point at which a nuclear chain reaction (i.e., neutrons released in one fission event cause another fission to occur) becomes self-sustaining. The processes involved at fuel-cycle facilities, such as the proposed NEF, are designed and maintained to be subcritical (i.e., the chain reaction is not self-sustaining), such that any criticality would occur inadvertently.³² *See* Staff Criticality Testimony at 4-5. The rate at which nuclear fission occurs, and the associated production of neutrons, is offset by the rate at which neutrons are lost to capture or leak from the system based on

³²By contrast, controlled criticality is important for power generation at nuclear power reactors.

the geometry of the fissile material. *See id.* at 2. Thus, these witnesses explained, criticality is calculated as the ratio of neutron production to neutron destruction, which is expressed in what is known as the effective multiplication factor, or *k*-effective (k_{eff}). *See id.* at 4. A k_{eff} of 1.0 means a system is critical with an equal rate of neutron production and destruction, or loss, while subcriticality (neutron loss exceeds production) and supercriticality (neutron production exceeds loss) are expressed by a k_{eff} of less than 1.0 and greater than 1.0, respectively. *See id.* Because neutrons produced by fission have a high energy, the Staff witnesses explained, in order for criticality to occur in a system that utilizes low enriched uranium (LEU), there would need to be some mechanism present, such as the addition of water, to slow or moderate the neutrons to energies capable of causing additional fissioning such as would lead to criticality. *See id.* at 2.

2.49 The Staff witnesses further explained that the rate at which neutrons are produced depends on the type and amount of fissionable material in a system. Therefore, limiting the amount of fissile material in the system, which contains nuclides that can be fissioned by high- and low-energy neutrons, can help ensure subcriticality. In addition, the Staff witnesses noted that absorption and leakage processes remove neutrons that would otherwise participate in the fission reaction, and can likewise be used to achieve subcriticality, the former occurring with the addition of nonfissile materials and the latter being primarily dependent on the geometry and density of the system. According to these witnesses, controlling leakage through geometry via limitations on the dimensions, densities, and reflection of the nuclear material is an important aspect of nuclear criticality safety. By way of example, they explained, if the ratio of surface area to volume of the fissile material is increased, neutron leakage will increase, while the addition of what are known as neutron reflectors (e.g., concrete) decrease leakage by scattering neutrons that would otherwise have been lost. When a system is designed so that a given container or piece of equipment is unable to hold sufficient fissile material to produce criticality regardless of the enrichment, concentration, or reflection, that system is “subcritical by safe geometry.” By contrast, when a container or piece of equipment cannot hold enough fissile material to reach criticality based solely on enrichment, that container/equipment is “subcritical by favorable geometry.” In this vein, the Staff witnesses explained, since high-energy neutrons are not readily captured by U-235, which is the fissile material in enriched uranium, those neutrons must lose energy and become moderated through the presence of a light element, such as hydrogen, to reach criticality. *See id.* at 3-4.

2.50 These Staff witnesses also explained that fuel-cycle facilities utilize a wide variety of controls to prevent inadvertent criticality, including passive and active engineering controls and simple and enhanced administrative controls. According to these witnesses, passive engineered controls, such as a fixed storage rack that only permits storage of a limited amount of material in an appropriately

sized container, are preferred in that they rely on fixed design features, not computer or human action. Similarly, active engineered controls are physical devices designed to monitor system processes and respond to process deviations without human action, e.g., gamma monitoring devices used to automatically close valves if nuclear material is detected in unwanted locations. By contrast, they explained, simple administrative controls require only human action, such as when an individual chooses the correct container in which to store nuclear material based on his or her knowledge of a particular procedure. Enhanced administrative controls, on the other hand, combine the use of physical devices and human action, such as a light on a console that tells an operator to close a valve. *See id.* at 5.

2.51 Finally, the Staff witnesses explained that the k_{eff} is generally determined through the application of computer codes designed to model the neutronic processes in a given system.³³ For its criticality assessment, they noted, LES employed the MONK 8A Monte Carlo computer code, which models neutrons as separate particles that interact at random with nuclei according to fundamental laws of probability and under parameters that represent the relevant conditions of the proposed system. More specifically, they explained, the MONK 8A code compares the number of neutrons generated by a process to the number present at the beginning of the modeling to calculate a k_{eff} . *See id.* at 4.

2.52 Regarding the Board's first identified area of concern, relative to the methodology and assumptions used by LES to validate and verify the MONK 8A code, *see supra* p. 790, the LES witnesses presented a MONK 8A Validation and Verification Report, Revision 3 (MONK 8A Report), prepared by LES contractor Framatome ANP.³⁴ *See* LES Criticality Testimony at 7. As these witnesses explained, that report is used to validate the MONK 8A code and uses the validated code to verify criticality calculations performed for the NEF, in this case by Urenco. *See id.* The validation methodology involved a multistep process whereby the general NEF design is identified and applicable benchmark experiments are selected for the relevant area of applicability (AOA), followed by modeling and calculation of k_{eff} values for those selected experiments. Thereafter, they indicated, statistical analysis of the results is conducted to determine computational bias and the Upper Safety Limit (USL) for the benchmark experiments. *See id.* at 8. For its part, the LES witnesses explained, the verification methodology involved a comparison of the benchmark results produced by Framatome's analysis to those

³³The Staff witnesses also explained that experimental data and results also provide valuable information regarding process criticality, but because experimental data cannot be obtained for every potential system design, computer codes have been developed to approximate the postulated process conditions. *See* Staff Criticality Testimony at 4.

³⁴More specifically, the MONK 8A code was used, in this instance, with the JEF2.2 evaluated nuclear data library cross-section set. *See* LES Criticality Testimony at 20.

published by Serco — the vendor of the MONK 8A code — followed by an assessment of the repeatability and reliability of the MONK 8A code, which is arrived at by running one of those validation cases at a series of different dates and times, along with the repetition of a subset of the MONK 8A criticality analyses run by Urenco for the NEF.³⁵ *See id.*

2.53 As memorialized in question 7 of the Board’s January 30 memorandum and order, the Board requested that the Staff correlate the IROFS discussed in Table 5.3-3 of the SER (which correlates certain IROFS with modes of achieving criticality) with the cases listed in Table 7-3 of the MONK 8A Report, and explain whether all IROFS are adequately represented in Table 7-3. *See* January 30 Order at 3; *see also* SER at 5-32. More specifically, the Board asked the parties to describe how the MONK 8A criticality calculations relate to the IROFS in Table 7-3 of the report, such as explaining the relationship between IROFS related to DUF₆ cylinders and the criticality calculations done for those cylinders. *See* Tr. at 3192.

2.54 In response to this Board question, the Staff witnesses explained that they did not believe it was possible to correlate a specific IROFS with the cases in Table 7-3 because there are many different possible IROFS for a given NCS scenario, and Table 7-3 does not provide an indication of or include IROFS. *See* Staff Criticality Testimony at 29. In essence, the Staff witnesses asserted that the Staff review of the verification portion of the MONK 8A Report, including Table 7-3, was limited to ensuring that the paired k_{eff} results listed in Table 7-3 were statistically equivalent, while its review of IROFS occurred in the context of its ISA Summary review. *See id.* In other words, the Staff’s verification and IROFS/NCS reviews were separate matters, which the Staff did not correlate so as to draw a relationship between the scenarios listed in Table 7-3 and IROFS for the NEF.

2.55 LES, on the other hand, did provide the Board with an explanation of the relationship between all of the criticality IROFS and associated parameter safe values, safety criteria, and NCS analyses, set forth in a table entitled “Relationship Between Criticality IROFS and Parameter Safe Values/Safety Criteria/Nuclear Criticality Safety Supporting Analyses.” *See* LES Criticality Testimony at 10; LES Exh. 129-M (Table 1, Relationship Between Criticality IROFS and Parameter Safe Values/Safety Criteria/[NCS] Supporting Analyses (undated)) [hereinafter IROFS Table]. Specifically, the table provided by LES lists each criticality IROFS with a brief description of that IROFS, its related control parameter and associated reference, and any necessary explanatory comments. *See* IROFS Table. In that vein, the LES witnesses explained that because, in conducting its verification

³⁵ A detailed description of the specific validation and verification methodologies used by Framatome can be found in the MONK 8A Report. *See* LES Exh. 127-M, encl. 1, secs. 3 & 7 (Letter from R.M. Krich, LES, to Director, NMSS, NRC (Feb. 28, 2006)).

analyses, Framatome utilized 30 cases run by Urenco in support of the NEF NCS analyses, a direct relationship did in fact exist between the use of these cases for code verification purposes (as presented in Table 7-3) and their purpose of providing criticality accident sequences for use in the NCS demonstration in the ISA for the NEF, which in turn determines the necessary IROFS. *See* LES Criticality Testimony at 9. At the evidentiary hearing, the Staff witnesses proffered as an exhibit revisions to section 5.3.6.3 of the SER for the NEF, which, as Mr. Felsher recognized on behalf of the Staff during the hearing, expresses the Staff's agreement with LES's analysis of the role of criticality calculations in the formation of IROFS. *See* Tr. at 3611; Staff Exh. 76-M, encl. at 3-6 (Letter from J.G. Giitter, NMSS, NRC, to R.M. Krich, LES (Mar. 3, 2006)). In sum, the table provided by the LES witnesses delineating the relationship between the criticality IROFS for the NEF and the related criticality calculations satisfies the Board's concerns in this regard.

2.56 The Board also sought additional information from the Staff regarding the range of H/U ratios evaluated in the MONK 8A Report, as memorialized in question 5 of the Board's January 30 memorandum and order.³⁶ The Board's concerns in this regard stemmed from the large spread in H/U ratios in Table 7-3 of the MONK 8A Report. More specifically, in Figure 6-3 of that report, although the variation in k_{eff} was shown to be relatively large at low H/U ratios, it was very small at the very large H/U ratios, which, in the Board's view, unduly influenced the calculation of the bias in the computed value of k_{eff} . As the LES witnesses pointed out in their testimony, the Board's initial question in this regard referred to revision 1 of the MONK 8A Report, which has since been modified twice by LES. *See* LES Criticality Testimony at 12. According to these witnesses, revision 3 of the report better addresses the Board's concerns in that it reflects LES's incorporation of additional benchmark critical experiments intended to cover the AOA of the validation more adequately, as well as the removal of benchmark critical experiments that involved the use of high enriched uranium (HEU).³⁷ *See id.*

2.57 The LES witnesses then explained in more detail the manner in which they believe revision 3 to the MONK 8A Report addresses the Board's concerns

³⁶The substance of the Board's concerns as set forth in question 5 incorporates the related H/U ratio concerns as delineated by the Board at the October 2005 evidentiary hearing and later memorialized as questions 6.e and 6.f in Attachment A to its February 8, 2006 administrative order. *See* Tr. at 3171-72; February 8 Order, Attach. A at 2.

³⁷In addition, the LES witnesses noted that the benchmark critical experiments used in revision 3 of the report have H/U_{total} ratios of 0.787 to 103, which addresses, at least in part, the concerns raised by the Board in question 6 of the January 30 memorandum and order. *See* LES Criticality Testimony at 13. We discuss this matter further *infra* pp. 800-01.

regarding the bias allowance for the UF_6 product pipework cases.³⁸ According to these witnesses, additional bias allowance is not required for those cases beyond what is calculated for the applicable USL of k_{eff} because, consistent with NUREG/CR-6698, “Guide for Validation of Nuclear Criticality Safety Calculational Methodology,” the H/U ratio range of 12 to 14 is within the range of H/U ratios for the benchmark critical experiments found in the revised MONK 8A Report. *See id.* at 13; *see also* LES Exh. 131-M at 1 (NUREG/CR-6698, Guide for Validation of Nuclear Criticality Safety Calculational Methodology (Jan. 2001)) [hereinafter NUREG/CR-6698]. Nonetheless, the LES witnesses testified, Figure 6-3 of the report was further reviewed to address the impact of extension of the AOA for an H/U ratio of 0 (i.e., no moderation). *See* LES Criticality Testimony at 13. Figure 6-3, they explained, presents the trend for the complete range of H/U ratios, with an intercept value of 1.00375 and a bias slope of $-4.024E-05 [k_{eff}/(H/U)]$, *see id.* (citing LES Exh. 127-M, encl. 1, at 31 (Letter from R.M. Krich, LES, to Director, NMSS, NRC (Feb. 28, 2006)) [hereinafter MONK 8A Report]), and because the slope is negative, meaning the k_{eff} goes up as H/U ratio goes down, and the extrapolation is small (from 0.787 to 0), NUREG/CR-6698 permits extension of the AOA to an H/U ratio of 0 without penalty. *See id.* at 13-14 (citing NUREG/CR-6698, at 2).

2.58 Moreover, the LES witnesses explained, in an effort to address the impact of ranges of H/U ratios from benchmark critical experiments used to validate the resulting bias, a set of posited USLs were calculated for select ranges of H/U ratios, using the validation methods described in revision 3 of the report, and compared to the USL results found in that report. *See id.* at 14 (citing MONK 8A Report at 7-8). According to these witnesses, the resulting change in bias or bias allowance (i.e., Δ Bias) was calculated by subtracting the hypothetical USLs for the different ranges of H/U ratios from the USL determined in the MONK 8A Report. *See id.*

2.59 In the Board’s view, its concerns in this regard are adequately addressed by revision 3 to the MONK 8A Report, which results in a set of USLs that are satisfactory for the range of H/U ratios likely to be encountered in the NEF, namely:

- (1) for all facility systems not associated with the Contingency Dump System: $USL = 1.0 + 0.0 - 0.0085 - 0.05 - 0.0000 = 0.9415$; and
- (2) for the Contingency Dump System: $USL = 1.0 + 0.0 - 0.0085 - 0.05 - 0.0014 = 0.9401$.

³⁸ Though this Board question was posed to the Staff, the Staff witnesses did not provide any written testimony on this matter, noting that LES would address the bias concerns raised by the Board. *See* Staff Criticality Testimony at 28.

See LES Exh. 128-M at 5.2-2 ([NEF] Safety Analysis Report (SAR), ch. 5 (Feb. 2006)) [hereinafter SAR ch. 5].

2.60 Questions 6 and 8³⁹ from the Board's January 30 memorandum and order are directed at the same problem as question 5.⁴⁰ These Board questions arose out of consideration of three different cases, all concerning volumes stated to contain UF₆: (1) reflection by thin layers of water or concrete; (2) interaction of volumes (such as product cylinders) placed in an array; and (3) possible criticality resulting from an accident at the loading dock wherein the product cylinders are distributed in random fashion over the concrete. The first two of these cases are discussed in the Staff's SER for the NEF, see SER at 5-19, and the third case (a special subset of the second case) is discussed in the ISA. The problem that the Board initially observed is that in an unmoderated system ($H/U = 0$), the neutron spectrum is expected to be much harder than in the cases examined in the MONK 8A Report, and extrapolation of correlations of k_{eff} with H/U to the zero point are, in the Board's experience, highly questionable.⁴¹ For example, at an H/U ratio of zero, one would expect the corresponding point in Figure 6-6 to be far outside the range of energies reported in that plot. See Tr. at 3605-06.

2.61 In response to the Board's questioning in this regard at the evidentiary hearing, Ms. Hubbard explained that Framatome, in conducting the analysis for LES, "looked at 48Y cylinders, and also the 30B cylinders . . . [and] took all the moderation that was associated with the hydrogen that would come into these cylinders." Tr. at 3607. Similarly, in their written testimony on this matter, the LES witnesses explained that none of the cases in Table 7-3 of revision 3 of the MONK 8A Report correspond to no hydrogen moderation. See LES Criticality Testimony at 19. According to these witnesses, this is because "at the low enrichment limits established for the NEF, sufficient enriched uranic material cannot be accumulated to achieve criticality without moderation," and "[c]alculations performed by Framatome ANP for LES have demonstrated that k_{eff} for enriched uranic material at 6.0 weight percent U-235 (^{235}U) enrichment, with

³⁹The substance of the Board's concerns as set forth in questions 6 and 8 incorporate the related concerns regarding unmoderated cases delineated by the Board at the October 2005 evidentiary hearing and later memorialized as question 6.g in Attachment A to the Board's February 2006 administrative order. See February 8 Order, Attach. A at 2.

⁴⁰As the Board noted at the evidentiary hearing, these questions concern the treatment of containers of UF₆, not the depleted compound. See Tr. at 3603. Fortunately, the parties recognized this error before performing their work.

⁴¹In this regard, revision 3 of the MONK 8A Report contains several plots of interest: (1) Figure 6-2 Plot of MONK k effective vs. Fission Material Density, see MONK 8A Report at 30; (2) Figure 6-3 Plot of MONK k effective vs. H to U Number Ratio, see *id.* at 31; (3) Figure 6-4 Plot of MONK k effective vs. ²³⁵U Enrichment, see *id.* at 32; (4) Figure 6-5 Plot of MONK k effective vs. Mean Chord Length, see *id.* at 33; and (5) Figure 6-6 Plot of MONK k effective vs. Mean Log Energy of Neutron Causing Fission, see *id.* at 34.

no moderation (H/U ratio = 0), and with reflection, is less than 0.77.’’ *Id.* Hence, there was never a case in which cylinders had an H/U ratio of zero. Rather, the amount of hydrogen present was simply not mentioned. Accordingly, questions 6 and 8, as set forth in the Board’s January 30 memorandum and order, dealing with the circumstance of no moderation are moot.

2.62 Finally, in connection with the second area of concern raised by the Board regarding criticality safety, namely the probability of significant water vapor intrusion at the NEF and the associated impact on criticality safety,⁴² *see supra* p. 790, the LES witnesses explained their belief that the NEF will be designed and constructed so as to preclude a significant water vapor intrusion event.⁴³ *See* LES Criticality Testimony at 22. Specifically, they explained that because normal operation of the gas centrifuges requires high vacuum conditions, air in-leakage and the resulting water vapor intrusion is controlled to low levels so as to represent an abnormal condition. Further, any significant air in-leakage would cause a loss of vacuum in the system which would cause it to automatically shut down. Therefore, according to these witnesses, the buildup of a sufficient mass of moderated enriched uranium material for criticality is precluded by normal system operations. *See id.*

2.63 Although these witnesses did not, as suggested by the Board during the October 2005 evidentiary hearing, prepare a fault-tree diagram to address the Board’s concern, they explained in their written testimony their belief that the testimony fully addresses the matters raised by the Board. First, they stated a water vapor intrusion event is only significant relative to criticality safety if such an event occurs in those portions of the NEF Separations Plant that contain enriched uranium, such as the cascade centrifuges and enriched uranium product pipework, cylinders, pumps, cold traps, and vacuum pump/chemical trap sets. *See id.* at 23. Nonetheless, assuming a significant water vapor intrusion event were to occur, the LES witnesses explained the impacts for criticality safety relative to each of these facility components.

2.64 Regarding the impact on the centrifuges, the LES witnesses explained that the individual centrifuges are “safe by favorable geometry,” therefore an extreme sequence of events would have to take place to achieve criticality in a centrifuge cascade. More specifically, such an occurrence would require that: (1) a large number of centrifuges within a particular grouping, positioned at the product end of the cascade, fail; (2) the specific grouping of failed centrifuges is not recognized, and each develops air in-leakage that is not detected for an extended period of time; (3) product is lost from the system due to the air in-

⁴²The Staff did not provide any written or oral testimony on this matter in the context of criticality safety.

⁴³We discuss this matter at length in the context of the Board’s concerns regarding materials compatibility, *see infra* Part II.A.2.d.

leakage; and (4) that product loss is not detected during the material control and accountability procedures/requirements. Even assuming a conservatively high probability of 10^{-1} for each of those events, the LES witnesses concluded that the scenario required for criticality is not credible so that a significant water vapor intrusion event would not impact centrifuge criticality safety. *See id.* at 23-24.

2.65 Next, regarding the product pipework, the LES witnesses explained that the pipework is also safe by favorable geometry, and that criticality calculations performed for a range of generic arrays of pipe intersections, with the assumption that the pipes are entirely filled with a uranyl fluoride (UO_2F_2)/water mixture at optimum moderation at the highest enrichment permitted for the NEF (6.0 w/o), have demonstrated subcriticality for each of the arrays. Similarly, they noted, parallel pipe runs do not pose a criticality threat in that they either fit within the safe by favorable geometry value for cylinder diameter, or criticality modeling based on the foregoing assumptions has demonstrated subcriticality. *See id.* at 24. So too, relative to the product pumps, these witnesses asserted that the pumps (1) are safe by favorable geometry; or (2) even when criticality calculations are performed for a product pump combination unit, have been demonstrated to maintain subcriticality despite assuming they are filled with a UO_2F_2 /water mixture at optimum moderation at 6.0 w/o enrichment. Thus, according to the LES witnesses, significant water vapor intrusion does not pose a criticality safety threat for either the product pipework or product pumps. *See id.* at 24-25.

2.66 Relative to the type 48Y and 30B product cylinders, the LES witnesses noted that for those system components, criticality safety depends on control of moderator (i.e., hydrogen) content, which involves specifically ensuring that for each of these cylinders the amount of hydrogen present is less than the safety criteria limits set forth in Table 5.1-2 of the SAR. *See id.* at 25 (citing SAR ch. 5, tbl. 5.1-2). Product cylinder moderation, they explained, is controlled by a variety of NEF operational features, including ensuring that the cylinder is clean and empty (i.e., no visible oil and vapor pressure within specified limits) prior to receiving product, and monitoring the moderator entering the product cylinder while that cylinder is connected to the UF_6 systems. In addition, these witnesses noted that cylinder venting is conducted to remove any light gases found in the cylinder before it can be filled, and that excessive venting would indicate abnormal air in-leakage in the process system. If certain total vent count limits are exceeded, they declared, venting will immediately be ceased, as will the product cylinder filling process. Based on this series of operating features, the LES witnesses concluded that a significant water vapor intrusion event will not impact the criticality safety of the product cylinders. *See id.* at 25-26.

2.67 Lastly, the LES witnesses explained that the individual product UF_6 cold traps and the product vacuum pumps/chemical trap sets are each safe by favorable geometry. With regard to the cold traps, they noted that criticality calculations conducted for a pair of cold traps (each individually safe by favorable

geometry) with an assumed enrichment of 6.0w/o and a maximum credible H/U of 7 demonstrated that subcriticality would be maintained. Similarly, using the assumption that the components are filled with a UO_2F_2 -water mixture with no limit on water content and a 6.0w/o enrichment, calculations for a combination of the associated (i.e., connected) product vacuum pump/chemical trap sets and the nearby standby sets were conducted and demonstrated maintained subcriticality. Thus, the LES witnesses explained, as with the other process components, significant water vapor intrusion does not impact criticality safety for these components. *See id.* at 26-27.

(iii) NUCLEAR CRITICALITY-RELATED FINDINGS

2.68 In sum, the Board finds that the LES and Staff presentations are sufficient to address its concerns with regard to criticality safety. As to the matter raised in question 7 of the Board's January 30 memorandum and order regarding the relationship between criticality IROFS for the NEF and the related criticality calculations, the Board finds that the table provided by the LES witnesses delineating that relationship provides a satisfactory response to the Board's concerns in this regard. While the Staff witnesses did not demonstrate a Staff understanding of those relationships via its own evidentiary presentation, Staff witness Felsher did agree, upon Board questioning, that the LES analysis adequately demonstrated the role of criticality calculations in the formation of the IROFS. Further, relative to the related concerns raised by the Board in questions 5, 6, and 8, regarding (1) the significance of the H/U ratio ranges associated with benchmark criticality experiments used to validate the MONK 8A code, and (2) the manner in which unmoderated cases were treated in validating the code, the Board finds that the LES witnesses once again satisfied the Board's concerns. In the case of the former, their revision of the MONK 8A Report resulted in a set of USLs that are satisfactory for the range of H/U ratios likely to be encountered in the NEF, while for the latter, they pointed out that no unmoderated cases exist for the NEF. As he did with regard to the Board's concerns related to the relationship between IROFS and criticality calculations, Mr. Felsher stated at the evidentiary hearing the Staff's understanding of and agreement with revision 3 to the MONK 8A Report, as well as the presentation made by the LES witnesses in response to this line of Board questioning. Finally, the explanation by the LES witnesses regarding the probability of a significant water vapor intrusion event affecting criticality safety at the NEF also is sufficient to address the Board's concerns, although the Staff did not give its own evidentiary presentations in this regard.

2.69 Thus, while we cannot conclude on the basis of the record before us that the Staff initially had a reasonable basis for its conclusions regarding the adequacy of the NEF application relative to nuclear criticality safety, based on the overall record before the Board, including, in particular, the supplemental presentations

made by LES with regard to criticality safety, we now find supportable the Staff's ultimate conclusion that LES's NCS program for the NEF satisfies the pertinent Part 70 requirements.

d. Findings Regarding Materials Compatibility

2.70 At the conclusion of the October 2005 evidentiary hearing on contested matters, the Board posed two general questions to LES and the Staff pertaining to materials compatibility matters. More specifically, the Board inquired into a scenario in which a venting accident occurs and excessive water vapor is introduced into the centrifuge cascade, raising a concern regarding potential interactions between hydrogen fluoride (HF), the water vapor, and the aluminum in the cascades, and, as a separate matter, between HF and the various seals in the facility. *See* Tr. at 3169-71. These questions, when reduced to writing, were as follows:

Provide a discussion of the interaction of hot hydrofluoric acid with the aluminum fluoride layer on the aluminum tubes in the case of significant water vapor intrusion. Will the aluminum fluoride in the presence of water vapor transform to aluminum oxide plus [HF]? Will any resulting aluminum oxide flake off or will it continue to adhere as a different type of passivating layer?

[] Provide a discussion of the interaction of [HF] with the various seals that are present. Are they attacked and degraded or are [the seals made of] some form of fluorinated compound (e.g., Teflon) that is impervious to attack?

February 8 Order at 2 n.1, Attach. A at 2.

(i) WITNESSES AND EVIDENCE PRESENTED

2.71 LES presented a panel of four witnesses that provided written and oral testimony to address the Board's concerns regarding materials compatibility: (1) Rod M. Krich, LES Vice President of Licensing, Safety, and Nuclear Engineering; (2) Daniel G. Green, a Senior Consulting Engineer with EXCEL Services Corporation; (3) Allan J. Brown, Design and Licensing Consultant for Urenco (Capenhurst) Ltd., and Urenco Assistant Project Manager with respect to the NEF project; and (4) Scott M. Tyler, a manager in the Fire, Safety, and Risk Services group of AREVA (Framatome ANP). *See* Applicant's Prefiled Testimony in Mandatory Hearing Concerning the Compatibility of Uranium Hexafluoride and Hydrogen Fluoride with Centrifuge Plant Materials (October Hearing Questions 6.c and 6.d) (fol. Tr. at 3617) at 1-2 [hereinafter LES Materials Compatibility Testimony].

2.72 Mr. Krich's background and qualifications have been previously discussed by this Board. *See supra* Part II.A.2.a(ii). Mr. Green and Mr. Brown have likewise testified previously before the Board, on the topic of nuclear criticality, and their respective background and qualifications are discussed *supra* Part II.A.2.c(ii). Regarding Mr. Tyler, he received a Bachelor of Science in Fire Protection and Safety Engineering Technology from Oklahoma State University, and has 20 years of design, analysis, and consultation experience, including fire protection design and analysis, occupational and environmental safety, and process safety and risk management. In his position with Framatome, a primary contractor for the NEF project, Mr. Tyler drafted the LES SAR chapter on chemical process safety and continues to serve as a chemical process and fire safety expert for the NEF project. As relevant here, he prepared the baseline fire/emergency response needs assessment and is currently conducting building code and fire code analysis for the NEF. *See* LES Materials Compatibility Testimony at 3, 4 & attached resume.

2.73 For its part, the Staff proffered no written testimony, *see* Tr. at 3619-20, electing to provide only oral testimony by William Troskoski, a Senior Technical Reviewer, NMSS, FCSS, in response to Board inquiry. *See* Tr. at 3628-35. Mr. Troskoski's background and qualifications are discussed *supra* Part II.A.1.a(ii).

2.74 Based on the foregoing and the background and experience of the proffered LES and Staff witnesses, the Board finds that each of these witnesses is qualified to testify as an expert witness on the subject of materials compatibility at the NEF plant.

2.75 The LES witnesses first addressed the water vapor intrusion event posited by the Board. As an initial matter, these witnesses noted that the issue of compatibility of plant construction materials and the various chemical compounds that will be present in the plant, including UF₆ and HF, is discussed in chapter 6 of the SAR for the NEF. *See* LES Materials Compatibility Testimony at 6. By way of background, they noted that the process of "passivation" referred to by the Board involves a chemical reaction between certain metals and the chemical agents they come into contact with, which results in the formation of a thin coating on the surface of the metal that hinders further chemical reaction. *See id.* at 7. As relevant here, the LES witnesses explained, at room temperature UF₆ reacts at a slow rate with many metals and alloys, including aluminum, to form a passivating HF layer on the metal that can inhibit further reaction. *See id.* (citing LES Exh. 134-M at 14 (USEC, The UF₆ Manual, Good Handling Practices for Uranium Hexafluoride, foreword & pp. 13-14 (Jan. 1999)) [hereinafter UF₆ Manual]).

2.76 The LES witnesses next stated that they did not believe the scenario posited by the Board — a significant water vapor intrusion event followed by the

formation of aqueous hydrofluoric acid⁴⁴ — is likely to occur at the NEF given the process used at the facility. Specifically, they explained, the use of a feed purification process prior to the connection of UF₆ cylinders to the centrifuges helps to remove light gas impurities including HF and air, and minimizes the HF present in the Separations Plant (i.e., the building in which the actual enrichment process occurs). *See* LES Materials Compatibility Testimony at 8. The moisture level is minimized by (1) degassing the Separations Plant before UF₆ is introduced to the environment; and (2) maintaining a significant vacuum in the Separations Plant during operation. Taken together, these measures produce an inherently dry system that, when combined with the lack of any water connections in the process gas pipework, in their view precludes the formation of hydrofluoric acid. *See id.* Further, according to the LES witnesses, Urenco's European enrichment facilities, upon whose technology the NEF plant is based, (1) have conducted enrichment operations for approximately 30 years without significant HF corrosion to the centrifuges or Separations Plants, or loss of vacuum; and (2) as an indication of the minimal corrosion, have never experienced pipe failure or the need for replacement of the aluminum piping as a result of HF corrosion. *See id.* at 8-9.

2.77 Staff witness Troskoski and the LES witnesses also testified that, in the event of some significant air/water intrusion into the Separations Plant, the process essentially automatically ceases running, shutting down the cascades and isolating the UF₆ that is currently in process into sections of piping between isolation valves. *See* Tr. at 3631-32; LES Materials Compatibility Testimony at 9. Once confined, each section of piping (typically measuring several hundred feet) would contain approximately a few hundred grams of UF₆, which, even when fully hydrolyzed, would produce no more than 100 grams of anhydrous HF and would not threaten the integrity of the aluminum piping. *See* LES Materials Compatibility Testimony at 9.

2.78 Nonetheless, even assuming a significant water vapor intrusion event did occur, both Mr. Troskoski and the LES witnesses explained, such an event poses no threat to the public. For their part, Mr. Green and Mr. Brown noted that “[e]ven assuming full hydrolyzation of the anhydrous HF, the amount of aqueous HF would be small [compared] to the amount of aluminum in the pipe.” *Id.* While that limited quantity might degrade the hydrogen fluoride passivation layer, it would not, they asserted, corrode the aluminum piping itself so as to threaten its integrity. *See id.* Further, Mr. Brown testified, aluminum has been proven resistant to corrosion under operating plant conditions as demonstrated by the operational experience of Urenco, and has been widely recognized as

⁴⁴ HF is extremely reactive in both its gaseous and aqueous (hydrofluoric acid) form, and is corrosive to various materials, including certain metals, and can be very harmful if ingested or inhaled. *See* LES Exh. 132-M at 6.1-5 ([NEF SAR], 6-i to 6-iv, 6.0-1 to 6.0-2, 6.1-1 to 6.1-8, 6.2-1 to 6.2-6, 6.4-6 (Apr. 2005)).

a suitable material for plants employing UF₆. *See id.* at 10 (citing LES Exh. 133-M (International Atomic Energy Agency, Communication Received from Certain Member States Regarding Guidelines for the Export of Nuclear Material, Equipment and Technology (Sept. 16, 1997)); UF₆ Manual). Finally, they noted that Separations Plant piping opened during the decommissioning of a Urenco group facility, which had been operating for approximately 20 years, did not show any visible signs of corrosion, even in portions of the piping that may have experienced occasional air in-leakage. *See id.*

2.79 In response to the Board's second line of inquiry regarding seal integrity, the LES witnesses testified that none of the seals used in the various equipment and systems at the NEF would be expected to degrade due to HF exposure. More specifically, they explained that the seals utilized at the NEF would be similar to those installed in Urenco's currently operating enrichment facilities, which are required to be constructed of UF₆-compatible materials such as fluoroelastomers and fluorinated polymers. *See id.* at 11. Further, when under the vacuum conditions that will exist in the Separations Plant, HF is far less reactive than UF₆. *See id.* Additionally, they noted that fluoroelastomers are also recognized by industry trade group documents for use in operations involving anhydrous HF. *See id.* (citing LES Exh. 135-M (Hydrogen Fluoride Industry Practices Institute, Materials of Construction Guideline for Anhydrous Hydrogen Fluoride (Jan. 2000))). Finally, the LES witnesses pointed out that prior to constructing its existing enrichment facilities, Urenco tested potential seal materials for resistance to UF₆ by exposing the materials to UF₆ at actual operating temperatures, and used the results of those tests to qualify seals for use in the Separations Plant. *See id.* at 11-12.⁴⁵

2.80 With respect to the likelihood of a significant intrusion of water vapor, such as might occur were the seals in the valve admitting UF₆ into the cascade line to fail, Staff witness Troskoski provided testimony about the methods used to estimate accident likelihood and the consequences of severe breach, should all protective measures fail. *See Tr.* at 3628-35. The Board initially expressed concern regarding the Staff's categorization of such an event as "highly unlikely," noting that neither LES nor the Staff had provided a quantitative analysis of the likelihood of such an event, and the contingent failures that might follow. *See Tr.* at 3621. In response, Mr. Troskoski explained that LES used a qualitative methodology, as permitted by the applicable NRC regulations and guidance, to identify the accident sequences that might exceed applicable performance requirements, such as radiological and chemical dose to workers, the public, and the environment. *See Tr.* at 3628-29. For those sequences that could exceed

⁴⁵In addition, at the evidentiary hearing the Board noted a recent *Time* magazine article that discussed the integrity of Teflon seals, which are made of materials similar to those LES proposes to use in its facility, in the UF₆ environment. *See Tr.* at 3626.

a specified performance requirement, LES was required to put in place IROFS to reduce the risk to a level acceptable under the regulations. *See* Tr. at 3629. Regarding the specific accident scenario raised here, Mr. Troskoski noted that if such a breach occurs, air goes into the system and reacts with the UF_6 to form UO_2F_2 and HF. He also indicated, however, that radioactive material would have to exit the system to exceed applicable performance requirements. Because the system operates under a partial vacuum, he observed such an event could only occur if the leak continues for an extended period of time so that the pressure in the system rises to become close to or equalized with atmospheric pressure, at which point radioactive materials could escape through molecular diffusion. *See id.* at 3631-32. Thus, he concluded that even if multiple breaches simultaneously occurred along the piping, only very small amounts of HF would escape and at a very slow rate, given there is no driving force pushing it out of the system, while the UO_2F_2 would likely be confined to the system. *See id.* at 3633, 3634. Accordingly, any hazard posed by such a breach would be confined to the workers in the plant who, due to the characteristics of HF, would quickly become aware of the leak. *See id.*

(ii) MATERIALS COMPATIBILITY-RELATED FINDINGS

2.81 As to the first matter — the effects of a significant water vapor intrusion on the aluminum piping in the centrifuge cascade — the Board concludes that the record contains adequate information to satisfy its concerns. More specifically, given the testimony of the LES witnesses to the effect that water vapor is highly unlikely to be present in the system, which is inherently dry, combined with the showings that a passivating layer is likely to form that would protect the system from corrosion and that the extensive operating experience of Urenco with its plants has not surfaced any significant problems regarding water vapor intrusion, the Board agrees that it is unlikely that such intrusion would pose a significant threat to the integrity of the system as a result of HF corrosion.⁴⁶ Thus, the testimony of LES's witnesses provides an adequate answer to this portion of the Board's inquiry. So too, the testimony provided by the LES witnesses with respect to seal integrity satisfies the Board's queries, in that the seals have been demonstrated to be resistant to UF_6 , and can therefore reasonably be expected to be even more resistant to anhydrous HF.

2.82 Although the Staff did not provide any testimony on these basic chemical

⁴⁶ Although not a factor in the Board's decisionmaking given there is no evidence or testimony on the record in this regard, the Board noted during the evidentiary hearing that it appears hydration of thin films is a matter still under review in basic science, such that there is unlikely to be a basis for a complete resolution to the issue of passivating layer stability during this proceeding. *See* Tr. at 3613-14.

process questions posed by the Board or articulate on the record before us its basis for finding that a significant water vapor intrusion event is “highly unlikely,” Mr. Troskoski’s supplemental oral testimony at the evidentiary hearing, when taken together with the testimony and evidence presented by the LES witnesses, is sufficient for the Board to find reasonable the Staff’s conclusions that LES’s chemical process safety plans provide reasonable assurance of protection of the public health and safety and the environment. As Mr. Troskoski acknowledged, even if a serious piping breach did occur, it can reasonably be expected that UF₆ would not escape, and any HF that did escape would be minute and readily detectible. As such, the Board is comfortable that the consequences of such an accident would have no measurable impact on the public health and safety or the environment. Thus, notwithstanding any concerns we might have about whether the Staff has clearly articulated or adequately supported the *basis* for its conclusion that LES’s plan provides reasonable assurance that the public health and safety will be protected, the Staff’s ultimate *conclusions* in this regard are reasonable and thus provide an adequate foundation for this portion of the NEF licensing determination.

e. Findings Regarding Fire Safety

2.83 With regard to fire safety, the Board requested that the Staff and LES discuss the manner in which residual heat from an electrical cabinet fire is dissipated, and the potential for reignition of an electrical cabinet fire after it is extinguished with an inert gas and the cabinet is opened before the residual heat has dissipated. *See* Tr. at 3173; February 8 Order, Attach. A at 2.

(i) WITNESSES AND EVIDENCE PRESENTED

2.84 In response to the Board’s cabinet fire-related queries, the Staff presented one witness, Rex G. Wescott, a Senior Fire Protection Engineer for the NRC. Mr. Wescott has a Bachelor of Science in Physics and a Master of Science in Engineering Science from Clarkson College, and a Bachelor of Science in Fire Protection Engineering from the University of Maryland, and has been employed by the NRC for almost 30 years as a fire protection safety engineer, a hydrologist, a plant systems engineer, and various other positions. As relevant here, Mr. Wescott reviewed the fire safety aspects of the SAR and the ISA Summary for the NEF, and prepared the chapter on fire safety for the SER. *See* NRC Staff Pre-Filed Mandatory Hearing Testimony Concerning Electrical Cabinet Fires (fol. Tr. at 3637) at 1 & attached resume [hereinafter Staff Fire Safety Testimony].

2.85 LES presented a panel of three witnesses: (1) Rod M. Krich, LES Vice President of Licensing, Safety, and Nuclear Engineering; (2) Daniel G. Green, a Senior Consulting Engineer with EXCEL Services Corporation; and (3) Scott

M. Tyler, a Manager in the Fire, Safety, & Risk Services group of Framatome ANP. *See Applicant's Prefiled Testimony in Mandatory Hearing Concerning Fire Protection (October Hearing Question 6.h) (fol. Tr. at 3640) at 1 [hereinafter LES Fire Safety Testimony].* Mr. Krich has testified before the Board, and his background and qualifications have been discussed at length. *See supra* Part II.A.2.a(ii). Mr. Green and Mr. Tyler have also previously testified before this Board, and their background and qualifications are discussed *supra* Parts II.A.2.c(ii) and II.A.2.d(i), respectively.

2.86 Based on the foregoing, and the background and experience of the respective witnesses proffered by the Staff and LES, the Board finds that each is qualified to testify as an expert witness on the subject of cabinet fire safety at the NEF plant.

2.87 As an initial matter, the LES witnesses explained the basis for their belief that the likelihood of fire *ignition* in an electrical cabinet with a propagating (i.e., spreading) fire is very low. *See LES Fire Safety Testimony at 6.* Specifically, they pointed out that the fire safety program at the NEF is designed to meet the criteria set forth in the SRP and that LES utilized additional fire safety criteria from other Staff guidance documents in developing the NEF fire safety program to ensure it meets the requirements of 10 C.F.R. Part 70. *See id.* at 9. According to these witnesses, several factors support a conclusion that the likelihood of ignition with a propagating fire is low, including (1) use of appropriate design measures such as fire-resistant materials (e.g., qualified fire-resistant cabling⁴⁷) and a dedicated water supply system; (2) implementation and maintenance of a management system that contains fire prevention criteria; and (3) detailed fire safety analyses that evaluate the impact of various fire scenarios on the NEF and regulated materials, and specify appropriate IROFS to limit the consequences of any fire and ensure that even a serious fire would not threaten the public safety. *See id.* at 9-10.

2.88 Even assuming ignition of an electrical panel or cable were to occur, the Staff and LES witnesses testified, reignition is unlikely to occur given the various fire suppression techniques that LES proposes to utilize at the NEF. First, these witnesses noted, the NEF has several design features that differ from the designs at power reactor facilities where cabinet fires — and reignition — have been known to occur. For one, the electrical cabinets are sparsely populated, as compared to cabinets in typical power reactors, such that the amount of cable ignited in any given fire would be relatively small. *See Tr.* at 3645-46. As to

⁴⁷ More specifically, the LES witnesses testified that “[f]or ‘all uranic material system power, instrumentation and control circuits’ in the NEF, LES has committed to a degree of inherent fire safety by requiring the use of cabling qualified to [Institute of Electrical and Electronics Engineers]-383” standards, which is specifically designed to be fire-resistant. LES Fire Safety Testimony at 5-6 (quoting Staff Exh. 58-M at 3.1-18 ([NEF ISA] Summary, vols. 1 & 2 (Apr. 2005))).

the specific scenario posited by the Board — a cabinet fire is extinguished by an automatic fire suppression system whereby an inert gas is sprayed in the closed cabinet, only to have the fire reignite when the cabinet doors are opened and oxygen flows in — the Staff and LES witnesses noted that the NEF will not use any such automatic suppression systems in any areas of the facility containing significant amounts of special nuclear or radioactive materials. *See* Staff Fire Safety Testimony at 2; LES Fire Safety Testimony at 6-7.

2.89 Rather, these witnesses explained, the NEF will employ various means to detect a fire rapidly and respond with manual suppression methods. The NEF will employ an around-the-clock fire brigade, comprised of individual employees who are cross-trained to be members of the brigade, including among them a criticality safety specialist. *See* Tr. at 3646-47. A small cabinet fire (i.e., one that has burned for approximately 5 minutes or less) can likely be extinguished using a portable hand-held extinguisher containing an inert gas such as carbon dioxide (CO₂). Should the fire escalate, or burn for a longer period of time, the NEF will be equipped with larger wheeled extinguishers. *See* Staff Fire Safety Testimony at 2; LES Fire Safety Testimony at 7; Tr. at 3644-45. If those non-residue-type extinguishers prove ineffective, the LES witnesses noted, the NEF would de-energize the electrical equipment and the NEF Fire Brigade (and any outside response teams) would fight the fire with water. *See* LES Fire Safety Testimony at 7-8. In this vein, the NEF site will have two 1000 gallon per minute pumps with sufficient hydrants and hoses to reach any location within the facility. *See id.* at 8 (citing LES Exh. 136-M at 7.5-1 to -3 ([NEF SAR], ch. 7 (Sept. 2004))). If the fire is completely extinguished by such means, Mr. Wescott explained, heat dissipation and/or oxygen depletion will preclude reignition, but if the fire is deeper within the system, reignition could occur. *See* Staff Fire Safety Testimony at 2. To guard against possible reignition, the Staff and LES witnesses noted that the fire response team will be trained to remain onsite for a period of time to monitor for any possible reignition and respond appropriately according to NEF prefire plans if the fire does in fact reignite. *See id.*; LES Fire Safety Testimony at 8-9; Tr. at 3642-43. From the standpoint of reignition, the LES witnesses also expressed their belief that water spray from hoselines would be the most effective method of extinguishing and preventing reignition of fires. *See* LES Fire Safety Testimony at 8 (citing LES Exh. 137-M at 63 (NUREG/CR-3656, “Evaluation of Suppression Methods for Electrical Cable Fires” (Oct. 1986))).

2.90 Moreover, the Staff and LES witnesses explained, even if electrical panel/cable reignition were to occur, it would not compromise the facility or the public safety. *See* Staff Fire Safety Testimony at 2-4; LES Fire Safety Testimony at 10-11. Mr. Wescott first explained that the NEF does not require electrical power to go into a safe configuration because control and detection circuits associated with safety mechanisms at the NEF are not routed through electrical cabinets, and most cabinets are not located in areas of the facility that contain

significant amounts of hazardous materials. *See* Staff Fire Safety Testimony at 2-3. In addition, Mr. Wescott described two IROFS that protect against the primary safety concern that could result from the spread of fire, namely the breach of a UF₆ confinement barrier that results in a release of UF₆. *See id.* at 3. The first IROFS involves combustible loading controls that limit both in-situ and transient combustible loading in areas of the facility that contain uranic materials, and requires liquid and solid waste containers to be made of metal so as to resist fire. The second IROFS is the presence of fire barriers and automatic fire doors and dampers, which are designed to withstand a 2-hour fire, to help confine fires to the area of origination. Mr. Wescott also noted that the presence of the internal Fire Brigade provides an additional defense-in-depth control, in that the brigade will be trained to respond to fires in accordance with the NEF's prefire plans and will have sufficient staffing and equipment, including wheeled fire extinguishers, to successfully suppress a postulated fire. *See id.* at 3-4. Further, as the LES witnesses explained, Fire Brigade training will address criticality safety concerns related to facility fires and the use of water, and any team responding to a fire in areas of the plant that contain sufficient quantities of radioactive materials will be accompanied by a criticality safety officer. *See* LES Fire Safety Testimony at 8. Finally, the Eunice Fire Department will provide a backup to the NEF Fire Brigade, and can arrive at the NEF approximately 11 to 15 minutes after notification. *See* Staff Fire Safety Testimony at 4. Though the Eunice Fire Department would not receive any additional fire-fighting training from the NEF, the NEF will provide training on hazardous materials response should the Eunice Fire Department have to enter into an area of the facility where, for example, HF has been released into the facility environment. *See* Tr. at 3647-48.

(ii) FIRE SAFETY-RELATED FINDINGS

2.91 On the basis of the Staff and LES testimony, the Board finds that the record is sufficient to support the Staff's conclusions with respect to fire safety matters. In sum, we find that the NEF's fire safety plan provides the means to quickly detect and respond to an electrical cabinet fire with manual suppression techniques, that such techniques are reasonably likely to extinguish the fire and prevent reignition, and, should reignition occur, any such fire could be rapidly addressed. Finally, we find that the NEF fire safety plan provides reasonable assurance that, even if an electrical cabinet fire were to occur, because electrical power is not required for the NEF to go into a safe configuration, and due to the IROFS that will be employed at the facility, such a fire should not impact the public health and safety. Thus, the Board finds that the Staff's conclusions relative to fire safety at the NEF are reasonable and provide an adequate foundation for this portion of the NEF licensing determination.

f. Overall Findings Regarding Specific Safety-Related Concerns

2.92 Based upon the foregoing, we thus find that (1) the LES application and the record of this proceeding contain sufficient information, and the Staff's review has been sufficiently adequate, to support the Staff's conclusions that the LES application complies with the requirements set forth in 10 C.F.R. §§ 30.33, 40.32, and 70.23; (2) LES is technically qualified to design and construct the proposed facility; (3) LES is financially qualified to design and construct the proposed facility; and (4) issuance of a permit for the construction of the NEF will not be inimical to the common defense and security, or to the health and safety of the public.

B. Review of NEPA-Related Matters

2.93 With respect to environmental matters, i.e., matters stemming from the agency's NEPA obligations, paragraphs II.D and II.E of the Commission's January 2004 notice of hearing required the Board to determine "whether the review conducted by the NRC Staff pursuant to 10 C.F.R. Part 51 has been adequate." CLI-04-3, 59 NRC at 12; *see also* 10 C.F.R. § 2.104(b)(2)(ii). To assist the Board in making its findings with regard to environmental/NEPA matters, in its January 30 memorandum and order the Board requested that LES and the Staff make presentations addressing two matters: (1) the purpose and need statement in the final environmental impact statement (FEIS) for the NEF; and (2) cylinder rupture accidents. The Board's findings with respect to these specific issues are set forth below, as well as its conclusions about the "baseline" matters that, in accord with paragraph II.E of the Commission's hearing notice, *see* CLI-04-3, 59 NRC at 12-13; *see also* 10 C.F.R. § 2.104(b)(3), are before it as well.

1. Findings Regarding Purpose and Need for the NEF

2.94 Under the agency's NEPA regulations, the Staff's draft and final EIS are to include a "statement [that] will briefly describe and specify the need for the proposed action." 10 C.F.R. Part 51, Subpart A, App. A, § 4. Although the Board considered certain contested matters regarding the Staff's NEPA "needs" analysis, *see* LBP-05-13, 61 NRC at 436-45, in the context of this mandatory hearing review of uncontested environmental matters, relative to the purpose and need statement in the NEF FEIS, the Board requested that LES and the Staff address the following issue:

The purpose and need statement in section 1.3 of the staff's [FEIS] for the NEF is insufficient. The approach taken by LES in section 1.1 of its [ER] is adequate;

however, it is not sufficient for the staff simply to rely upon the analysis done by LES. The Board requests that the staff make a presentation addressing the topics covered by LES in section 1.1 of the ER, indicating with specificity whether and why it agrees with that presentation.

January 30 Order at 4.⁴⁸

a. Witnesses and Evidence Presented

2.95 In response to this Board question, providing testimony for the Staff were James Park, the NRC Project Manager for the environmental review of the LES application, and Rick Nevin, a consultant for ICF Consulting who assisted the Staff in preparing a supplemental purpose and need analysis relative to the LES application. *See Revised NRC Staff Pre-Filed Mandatory Hearing Testimony Concerning the Purpose and Need Statement in the [FEIS] for the Proposed [NEF] (fol. Tr. at 3656) at 1 [hereinafter Staff Purpose and Need Testimony].*⁴⁹ Because Mr. Nevin was unavailable for the March 6 evidentiary hearing,⁵⁰ in addition to Mr. Park, and without objection from LES, Timothy Johnson and Craig Dean were empaneled to provide supplemental testimony regarding the Staff's response to the Board's questions. *See Tr. at 3650-51.* Mr. Park, Mr. Nevin, Mr. Johnson, and Mr. Dean have each previously provided testimony before the Board, and their qualifications are outlined in either the Board's first or second partial initial

⁴⁸ Those portions of section 1.1 of the ER to which the Board referred contain the following:

ER Section 1.1.2.1, Forecast of Installation Nuclear Power Generating Capacity, presents a forecast of installed nuclear power generating capacity during the specified period; ER Section 1.1.2.2, Uranium Enrichment Requirements Forecast, presents a forecast of uranium enrichment requirements; ER Section 1.1.2.3, Current and Potential Future Sources of Uranium Enrichment Services, discusses current and potential future sources of uranium enrichment services throughout the world; ER Section 1.1.2.4, Market Analysis of Supply and Requirements, discusses market supply and requirements under alternative scenarios[;] and ER Section 1.1.2.5, Commercial Considerations and Other Implications of Each Scenario, discusses various commercial considerations and other implications associated with each scenario.

Staff Exh. 61-M at 1.1-4 ([LES ER], sec. 1.1 (Apr. 2005)).

⁴⁹ LES did not provide written testimony on this issue.

⁵⁰ Although he was originally scheduled to provide oral testimony at the March 6 hearing, Mr. Nevin was unable to attend. *See Tr. at 3648.* Without objection from LES, the Board permitted his prefiled testimony to be incorporated into the record, subject to later verification. *See Tr. at 3655-56.* Acting in accordance with the Board's directive in this regard, on March 20, 2006, the Staff filed an affidavit from Mr. Nevin certifying that he did, in fact, prepare his prefiled testimony regarding the purpose and need statement and that it was true and correct to the best of his knowledge. *See Letter from Margaret Bupp, NRC Staff Counsel, to Administrative Judges (Mar. 20, 2006), Attach. (Affidavit of Rick Nevin (Mar. 15, 2006)).*

decisions on environmental contentions. *See* LBP-06-8, 63 NRC at 271-73; LBP-05-13, 61 NRC at 437-38.

2.96 Based on the foregoing, and the background and experience of the respective witnesses proffered by the Staff, the Board finds that each is qualified to testify as an expert witness on the subject of the NEPA purpose and need for the NEF plant.

2.97 Also, as an attachment to the written testimony of Mr. Park and Mr. Nevin, the Staff submitted a document titled “Purpose and Need for the Proposed Action,” which it asserted addresses the elements of the purpose and need statement contained in the ER, as requested by the Board. At the March 6 evidentiary hearing, the Staff indicated that its intent in proffering the document as an attachment to the testimony of Mr. Park and Mr. Nevin was that it be considered a supplement to the FEIS.⁵¹ *See* Tr. at 3651. According to Staff witness Park, the additional analysis, which was prepared by the Staff with the assistance of Mr. Nevin, “includes an expanded discussion of the overall purpose and need for the proposed action and an independent and updated market analysis of enriched uranium.” Staff Purpose and Need Testimony at 7; *see* Tr. at 3661, 3666-67.

2.98 According to Mr. Park, section 3.1 of the Staff’s FEIS discussed the need for the NEF in terms of the necessity of an additional reliable and economical domestic source of enrichment services as well as contributing to the attainment of national energy security policy objectives. To support its analysis of this identified need, the Staff in the FEIS provided background information on and a description of the current and projected domestic supply and demand for uranium enrichment services, as well as a discussion outlining global supply and demand issues. In so doing, Mr. Park indicated, the Staff compared projections of uranium enrichment demand prepared by LES and by the Energy Information Administration (EIA) and concluded both forecasts indicated a need for additional uranium enrichment capability to ensure national energy security. In addition, according to Mr. Park, noting that the proposed NEF would provide roughly 25% of current and projected domestic enrichment services demand, the Staff in its needs analysis declared that the United States enrichment services market would be especially susceptible to any unforeseen global supply shortfall if, as expected, the Paducah, Kentucky gaseous diffusion plant closes without an offsetting supply increase from the combined output of the proposed USEC, Inc. American Centrifuge Plant (ACP) and the proposed LES NEF. *See id.* at 4-5.

2.99 Further, based on this stated need for the proposed NEF, Mr. Park explained that the Staff identified a range of alternatives it subsequently evaluated

⁵¹ That attachment was also numbered by hand sequentially following the last page of the written testimony, beginning with page 8, and we accordingly cite here to that attachment as if it were part of the testimony (i.e., Staff Purpose and Need Testimony at 8-16).

in chapter 2 of its FEIS. More specifically, these alternatives included the “no action” alternative, under which the proposed NEF would not be constructed, along with other alternatives for providing reliable and economical domestic sources of enriched uranium, including reactivating the Portsmouth Gaseous Diffusion Facility, purchasing LEU from foreign sources, and utilizing various enrichment technologies, such as (1) the electromagnetic isotope separation process, (2) liquid thermal diffusion, (3) gaseous diffusion, and (4) laser separation technologies (atomic vapor laser isotope separation and separation of isotopes by laser excitation). According to Mr. Park, the Staff determined that reactivation of the Portsmouth facility was not likely, and that reliance on foreign suppliers of LEU did not meet the need for domestic sources of enriched uranium, thus eliminating both of these alternatives from further consideration. Also, Mr. Park observed, based on its evaluation of the alternative technologies to the LES-proposed gaseous centrifuge technology, the Staff concluded these technologies were either considerably more costly than the centrifuge technology or not yet ready for commercial application, and thus were not able to provide reliable and economical domestic sources of enriched uranium so as to merit additional FEIS analysis. Finally, Mr. Park stated that after weighing the impacts of the proposed action and comparing the alternatives, the Staff found that the overall benefits of the proposed NEF outweighed the environmental disadvantages and costs, based in part on the stated need for an additional, reliable, economical domestic source of enrichment services. *See id.* at 5-6.

2.100 Mr. Park concluded his direct testimony by declaring that although the Staff considered its exposition of the need for the proposed NEF in its FEIS sufficient to meet the requirements under NEPA, it nonetheless has provided the additional analysis requested by the Board, *see supra* p. 815, which was prepared by Mr. Nevin. In that analysis, Mr. Nevin compared several recent analyses of the global enrichment market, including the forecast in the LES ER, which he concluded indicates that the LES ER forecast for global enrichment demand was conservative when compared with World Nuclear Association (WNA) forecasts and the more recent EIA forecasts for global nuclear generating capacity. He also indicated that the NRC market analysis shows the domestic uranium enrichment demand forecast in the LES ER to be consistent with the EIA forecast, which in turn shows the combined proposed NEF/ACP licensed output would supply just over half of domestic demand in year 2020, after being adjusted for possible MOX impacts. This led him to conclude that the potential for a global enrichment supply shortfall after 2013 poses a substantial risk to the United States enrichment supply, particularly given that a secure domestic enrichment supply is essential to ensure continued supply to nuclear power plants that currently provide 20% of United States electricity demand. Additionally, he noted that recent Presidential energy policy efforts to increase the amount of electricity from nuclear power, such as the Global Nuclear Energy Partnership (GNEP), could further increase the

need for domestic uranium enrichment. Further, he provided an additional review of the seven LES-analyzed market scenarios,⁵² agreeing with the conclusion in the LES ER that Scenario A (NEF and ACP are built in the United States) was the preferred scenario, especially in the context of energy security and national security considerations. *See id.* at 7-10.

2.101 As was noted above, also before the Board is the Staff's independent market analysis of both United States and global uranium enrichment supply and demand. According to that analysis, the latter is important because the United States, although a substantial net enrichment services importer, also exports to some foreign customers. The analysis then goes on to consider the agreement and disagreement between recent enrichment services market analyses in three areas: global enrichment demand, global enrichment supply and supply shortfall risk, and United States enrichment supply and demand. *See id.* at 11.

2.102 With respect to global enrichment demand, the analysis indicated that although a primary driver of enrichment requirements is demand for enriched uranium fuel, which in turn is primarily a function of nuclear generating capacity, the tradeoff between enrichment separative work unit (SWU) prices and uranium prices is also a factor given that some utilities recently have reduced tails assays as uranium prices have increased relative to SWU prices. Noting that forecasts from the WNA and the EIA are updated periodically with new information about plans to build or halt operation at nuclear generating facilities and existing facility capacity factors, the analysis declared that the most recent WNA report, issued in 2004, reflects that, notwithstanding the slight decrease in the number of American generation facilities, there has been the equivalent of twenty-five new 1000-megawatt plants coming on line in the United States as a result of capacity factor increases. So too, the analysis indicated, the most recent 2005 EIA report

⁵²The LES ER scenarios included:

Scenario A: NEF and ACP Are Built in the U.S.

Scenario B: No NEF; USEC Deploys ACP and Continues to Operate Paducah diffusion facility

Scenario C: No NEF; USEC Deploys ACP and Increases ACP Capacity

Scenario D: No NEF; USEC Does Not Deploy ACP and Continues to Operate Paducah facility

Scenario E: No NEF, Urenco Expands Centrifuge Capability in Europe

Scenario F: No NEF; Russia Increases Sales of the HEU-Derived [Separative Work Unit (SWU)]

Scenario G: No NEF; Russia is Allowed to Increase Commercial SWU Sales to Europe and U.S.

Scenario H: No NEF; U.S. HEU-Derived LEU is Made Available to the Commercial Market
Staff Purpose and Need Testimony at 9.

reflects a substantial increase in world nuclear generating capacity through 2020 as compared to the 2002 EIA report. Further, in comparing the WNA, EIA, and LES ER global enrichment forecasts for 2020, the analysis stated that although the EIA has not updated its 2003 forecast, its 2005 nuclear generating capacity forecast for 2020 is similar to that of the 2003 WNA generating capacity forecast. This suggests, the analysis indicated, that the current EIA global enrichment capacity forecast is likely to be the same as the 2003 WNA global enrichment capacity forecast, which in turn is 10% above the LES ER estimate for 2020 global enrichment demand. *See id.*

2.103 Relative to global enrichment supply and any supply shortfall risk, the analysis states that while recent market analyses are in general agreement regarding the enrichment supply from old gaseous diffusion facilities and newer centrifuge plants in Europe and the United States, there is less certainty about Russian and American HEU and Western commercial SWU sales from Russia. In this regard, the Staff analysis notes that several market reports and the LES ER predict that all diffusion plants will be closed by 2013, with one report indicating those terminations will remove 17-18 million SWU of capacity at about the same time as the Russian HEU agreement will expire and remove an additional 5.5 million SWU from the market. Although the addition of the NEF and the ACP would add about 14 million SWU, this still suggests a shortfall of about 8 million SWU, according to the Staff's analysis, albeit one that is somewhat overstated because part of this existing diffusion capacity effectively has been removed from the market by economic and competitive considerations. While several reports suggest that a post-2013 shortfall could be filled by Russian commercial SWU sales to the West, the Staff analysis observes that LES indicated a substantial portion of the Russian commercial supply is outside United States nuclear plant specifications and/or is fully utilized by Russian tails enrichment. In sum, the Staff analysis finds that while the various market studies and the LES ER address a range of uncertainties regarding enrichment supply and demand in 2020 and beyond, including Russian commercial sales and ACP/NEF production, the consensus forecast is for a tight supply/demand balance and the associated risk of a supply shortfall, even if the ACP and NEF are producing at their licensed application capacity, and with substantial Russian supply following an extension of the HEU agreement and/or Russian commercial production. *See id.* at 12-13.

2.104 Finally, regarding United States enrichment supply and demand, the Staff's analysis provides a table that shows the EIA United States uranium enrichment requirements forecast through 2025 along with an LES ER forecast through 2020, adjusted to account for MOX fuel. The EIA forecast shows a demand growth of 13.5 million SWU in 2025, while the LES MOX-adjusted figure is 11.4 million SWU. The Staff analysis states that because the proposed licensed output of the NEF and ACP facilities would supply only 6.5 million SWU per year, or just over half of the 2020 MOX-adjusted demand, an extension of

the Russian HEU agreement or additional NEF/ACP production will be needed to meet domestic demand. This, according to the Staff analysis, poses a substantial risk to the United States market, along with energy security and national security risks. According to the Staff's analysis, deployment of the NEF/ACP gas centrifuge technology would address this enrichment market risk, as well as the associated energy and national security risks, while deploying a modular, economical technology that will allow for increased future production in response to market demands. *See id.* at 13.

b. Purpose and Need-Related Findings

2.105 As stated by the Board in its January 30 memorandum and order, while the purpose and need analysis conducted by LES in its ER is adequate, the Board concluded that the Staff could not simply rely upon the LES analysis, as appeared to be the case from the FEIS, but rather must conduct its own purpose and need analysis. The Board is satisfied that the Staff's supplemental purpose and need statement satisfies its concerns regarding the adequacy of the original statement. The Staff has set forth an additional, more detailed analysis that considers fully the various elements of the purpose and need statement contained in the ER. As was described above, the supplemental statement first examines the purpose and need for the proposed facility, and covers: (1) the need for a global supply of enriched uranium to satisfy global nuclear generating requirements; (2) the need for an economical and secure supply of enriched uranium to meet domestic electricity requirements; (3) the need for enrichment in the United States to achieve the dual goals of energy security and national security; and (4) the alternative scenarios considered in the ER. The supplemental statement also conducts a market analysis of the uranium enrichment supply and demand, which includes (1) global demand for enrichment, (2) global enrichment supply and the risk of a supply shortfall, and (3) domestic enrichment supply and demand. In the Board's view, when combined with the original purpose and need statement in FEIS § 1.3, this supplemental presentation constitutes a complete discussion of the purpose and need for the proposed action.

2. Findings Regarding Potential Cylinder Rupture Accidents

2.106 In FEIS Appendix C, as part of the analysis of potential dose impacts on individual workers and members of the public resulting from routine or normal NEF operations and accidents, the Staff included a discussion of five accidents as a representative subset of the potential accidents that could occur at the proposed NEF. *See Staff Exh. 47, at C-29 (NUREG-1790, "Final Environmental Impact Statement for the Proposed [NEF] in Lea County, New Mexico," vols. 1 & 2*

(June 2005)) [hereinafter FEIS]. As part of its mandatory hearing-related review, the Board requested that the Staff and LES brief the following issue pertaining to the environmental consequences of one of those potential accidents, a rupture of an overfilled and/or overheated cylinder containing UF₆:

In Appendix C to the FEIS, specifically in section C.4.2.2, the staff provides a discussion of hydraulic rupture of a DUF₆ cylinder in the blending and liquid sampling area, which it presents as the most severe accident with regard to the public health and safety. In that discussion, the staff indicates that LES will provide an emergency plan outlining mitigating actions that could be taken to reduce the consequences of that accident, but presents only the example of securing the heating, ventilation, and air conditioning systems in the area affected by the accident. The staff and LES should provide the Board with information regarding what other mitigating actions are potentially available to reduce the consequences of that type of accident.

January 30 Order at 4.

a. Witnesses and Evidence Presented

2.107 In response to this Board question, the Staff provided the testimony of David Brown, the Senior Assistant for Materials for the NRC, NMSS. Mr. Brown, who received a Bachelor of Science in Physics from Muhlenberg College and a Master of Science in Environmental Health Physics from Clemson University, and has more than 10 years of private industry and government experience as a health physicist, served as a license reviewer for the LES license application, and performed the role of Environmental Engineer/Scientist for the review. *See* NRC Staff Pre-Filed Mandatory Hearing Testimony Concerning Mitigation of a Cylinder Rupture Accident (fol. Tr. at 3670) at 1 & attached resume [hereinafter Staff Cylinder Rupture Testimony]. The LES testimony was presented by a panel consisting of (1) Rod Krich, LES Vice President of Licensing, Safety, and Nuclear Engineering, (2) Daniel Green, Senior Consulting Engineer with EXCEL Services Corporation, and (3) Scott Tyler, a Manager in the Fire, Safety, & Risk Services group of Framatome ANP, all of whose background and qualifications have been discussed previously in association with their testimony in this mandatory hearing. *See supra* Parts II.A.2.a(ii), II.A.2.c(ii), and II.A.2.d(i), respectively. Mr. Krich oversaw the preparation and submission of the NEF license application, as well as the engineering design of the facility's processes and safety systems. Mr. Green served as an engineering and regulatory consultant to LES, and provided support to LES in the development, review, and submission of its license application. Mr. Tyler's employer, Framatome ANP, served as the primary contractor on the NEF project and as a member of the NEF project team,

Mr. Tyler contributed to the preparation and review of portions of the NEF license application, namely Chapter 6, the chemical process safety chapter. Additionally, Mr. Tyler serves as a chemical process and fire safety expert on the ISA team, and he prepared the baseline fire/emergency response needs assessment, and is conducting International Building Code/International Fire Code analysis for the proposed facility in conjunction with design development. *See* Applicant's Prefiled Testimony in Mandatory Hearing Concerning Mitigating Actions for Postulated Cylinder Rupture Accident (Environmental Matter No. 2) (fol. Tr. at 3673) at 2-3 [hereinafter LES Cylinder Rupture Testimony].

2.108 All of the Staff and LES witnesses were, by reason of their training and experience, qualified to provide expert testimony on the subject of the impacts of cylinder rupture accidents.

2.109 Although agreeing with the LES witnesses that the possibility of a cylinder rupture mishap is highly unlikely, *compare* Staff Cylinder Rupture Testimony at 3, *with* LES Cylinder Rupture Testimony at 8, Mr. Brown described the possible accident sequence. He indicated that there exists at the proposed NEF a product blending station that allows cylinders to be filled with UF₆ at a specified U-235 concentration by permitting enriched uranium product from the centrifuges to be transferred to one or more product cylinders by heating donor product cylinders to cause solid UF₆ to sublime into a gas. This gas is then transferred to a receiving product cylinder, where it is cooled and desublimed back into a solid. Because electric heaters raise the donor cylinder temperature, if a heater's controller failed in a manner that caused the heater to stay on for a considerable period (approximately 15 hours), the possibility exists that the solid UF₆ in a donor cylinder could melt and with further heating cause a cylinder failure due to the expansion of the liquid UF₆, thereby releasing the contents of the cylinder into the room. Moreover, since the blending station is not airtight, the UF₆ would be released into other areas of the building and ultimately outside by means of the building's ventilation system, creating the possibility of onsite worker and possible offsite public exposure to UF₆ vapor and its reaction products, UO₂F₂ and HF. *See* Staff Cylinder Rupture Testimony at 2-4; *see also* LES Cylinder Rupture Testimony at 5; Tr. at 3677-78.

2.110 According to Mr. Brown, however, for this to occur, a series of protective measures designed to prevent this type of accident would have to fail, including control room operators ignoring multiple independent alarms resulting from air temperatures, cylinder temperatures, and gas pressures rising above their respective alarm setpoints, and the failure of automatic and redundant IROFS.⁵³ *See* Staff Cylinder Rupture Testimony at 2-3; Tr. at 3678. Additionally, Mr.

⁵³The LES witnesses noted that to prevent such an accident from occurring, two automatic, hard-wired, fail-safe, independent, diverse blending station donor heater trips (i.e., a temperature sensor trip
(Continued)

Brown indicated that even if a rupture does occur, UF₆ and HF have properties that would be readily detectable by the workers, including HF's distinct odor, which would cause them to seek safety through a number of doors in the blending station and notify the control room. The control room would then start to take steps to activate the emergency operations center (EOC) and implement detailed emergency response plans according to the NEF Emergency Plan,⁵⁴ which would involve mitigative measures such as using the public address system to alert other facility workers to proceed upwind and away from the release. The emergency control room operators also could take immediate action to secure the ventilation system for the area and try to contain the release within the blending room. There also would be notification to state and local authorities that an offsite release is possible, including notification to members of the public downwind to take shelter indoors, or to evacuate. *See* Staff Cylinder Rupture Testimony at 4-5;

on high cylinder temperature and a capillary temperature sensor trip on high internal blending donor station air temperature) will be provided. The LES witnesses also declared that each of these two trips will be tested at least annually to ensure they are available and reliable in accord with the NEF ISA. They further emphasized that for the initiating event (i.e., the blending donor station heater controller failure that causes the blending donor heater within the station to remain on) to cause a cylinder rupture and the associated consequences, there must be a concurrent failure of both of these preventive measure IROFS associated with tripping the blending donor station heater. In addition, although it is not considered an IROFS, operators will conduct periodic operational monitoring of system pressures/temperature during any blending operations, which will further reduce the possibility that the overheating condition necessary to cause the cylinder rupture could be sustained for the extended period of time necessary for this accident sequence to occur. *See* LES Cylinder Rupture Testimony at 8-9.

⁵⁴ According to the LES witnesses, if a cylinder were to rupture, appropriate response actions would be taken in accordance with the NEF Emergency Plan. Specifically, a catastrophic cylinder rupture would result in conditions that could progress to a "Site Area Emergency" as identified in sections 2.1.1 and 3.1.2 of the Emergency Plan. *See* LES Exh. 139-M ([NEF] Emergency Plan, excerpts (Sept. 2004)) [hereinafter Emergency Plan]. In the case of such an accident, or any other incident with the potential for a large airborne release of radioactive or other hazardous material, the NEF would at a minimum take the following actions:

1. Activate the Emergency Organization (EO) and EOC, as described in the Emergency Plan, and initiate the site emergency response team (ERT) response;
2. Upon receiving a report of a large airborne release, the ERT and/or operations, in turn, would:
 - a. notify NEF personnel to evacuate the affected area;
 - b. isolate ventilation to the affected area;
 - c. initiate other remote process operations as needed (e.g., isolate heater power supplies, close or open valves);
 - d. notify NEF personnel in areas adjacent to the affected area to shelter in place if inside;

(Continued)

LES Cylinder Rupture Testimony at 4-6; *see also* Tr. at 3679-80. According to the LES witnesses, detailed emergency response plans and implementation procedures will exist to ensure that all of the above-specified actions in fact occur. *See* LES Cylinder Rupture Testimony at 7.

2.111 Finally, in response to the Board's inquiry, the Staff and LES witnesses indicated that the NEF-type cylinder rupture accident was not like the one that occurred a number of years ago at the Sequoyah Fuels Corporation facility in Gore, Oklahoma, in which an overfilled UF₆ transportation cylinder was heated to remove the excess material, causing the cylinder to rupture and release UF₆ that, when combined with atmospheric moisture, created hydrofluoric acid that resulted in the death of one worker and injuries to several other employees. *See Sequoyah Fuels Corp. (Sequoyah UF₆ to UF₄ Facility), CLI-86-17, 24 NRC 489, 491 (1986)*. Both LES and the Staff pointed out that the Sequoyah Fuels event involved a worker who was in a confined position on an outdoor elevated tower and unable to escape the release. This would not be the case at the NEF, which would not involve a direct release to the outside, but rather leakage from cracks and openings in the building that will tend to disperse the release. *See* Tr. at 3676-77, 3681.

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- e. notify NEF personnel outside to proceed crosswind, then upwind of the affected area and/or proceed to interior shelter in place locations, as appropriate;
 - f. initiate personnel accountability procedures;
 - g. notify immediate off-site response agencies, such as the Eunice Fire and Rescue and/or Hobbs Fire Department and the Lea County Sheriff's office, and request medical and hazardous material response and law enforcement as needed; and
 - h. notify NEF security personnel to secure access to the NEF site at the entrance on NM State Highway 234 and/or coordinate with law enforcement if wind direction is such that additional sections of Highway 234 need to be secured;
3. Notify close proximity neighbors (e.g., Waste Control Specialists, County Landfill personnel) to shelter in place and/or evacuate as conditions require;
 4. Notify off-site response agencies to make public announcements and/or activate emergency broadcasts if broader public shelter in place and/or evacuation is believed necessary based on release conditions;
 5. Perform other notifications as required by the NEF Emergency Plan, including the New Mexico State Police, New Mexico Department of Public Safety, Andrews County, Texas Sheriff's Office, Texas Department of Public Safety – Midland, Texas State Operations Center – Austin, and the Texas Department of Health, Bureau of Radiation Control; and
 6. Notify the NRC.

Once the incident is secured, NEF personnel would perform incident investigation, sampling, cleanup, decontamination, and health assessments and related activities, as appropriate. *See* LES Cylinder Rupture Testimony at 6-7 (citing Emergency Plan §§ 3.2, 3.3, 5.1 to 5.5).

b. Overall Cylinder Rupture Accident Findings

2.112 The LES and Staff testimony regarding a cylinder rupture accident and its possible impact addresses the Board's concerns with respect to this matter. Not only did LES and the Staff provide a comprehensive list of preventative and mitigating actions that are available to forestall or reduce the consequences of such an accident, but both also explained in detail why this postulated accident sequence is highly unlikely. The presentations provided by LES and the Staff likewise are adequate to satisfy the NEPA requirement that impacts associated with facility operation be given a hard look.

3. Overall Environmental Review Findings

2.113 With respect to the balance of the Staff's environmental review not specifically addressed by the Board during the mandatory hearing, utilizing an approach similar to that employed by the Board in reviewing the safety record in this proceeding, we find nothing illogical about any aspect of the Staff's approach to environmental matters that were not the subject of the contested proceeding, nor anything to indicate that the facts in the record do not support the Staff's conclusions with respect to such environmental matters. We thus find, in accordance with paragraph II.D of the notice of hearing issued in this case (which tracks the reactor-based requirements of 10 C.F.R. § 2.104(b)(2)(ii)), that the NEPA review conducted by the Staff has been adequate.

4. Findings Regarding "Baseline" NEPA Determinations

2.114 As was noted previously, *see supra* Part I.A, regardless of whether a proceeding is contested or uncontested, in accordance with paragraph II.E of the notice of hearing issued in this case (which tracks the reactor-based requirements of 10 C.F.R. § 2.104(b)(3)), this Licensing Board is required to make the following "baseline" determinations regarding NEPA issues:

1. "Determine whether the requirements of section 102(2)(A), (C), and (E) of [NEPA] and Subpart A of 10 C.F.R. Part 51 have been complied with in the proceeding;"
2. "[I]ndependently consider the final balance among conflicting factors contained in the record of the proceeding with a view to determining the appropriate action to be taken; and"
3. Determine whether the construction permit "should be issued, denied, or appropriately conditioned to protect environmental values."

See CLI-04-3, 59 NRC at 12-13. In its response to the questions certified to

it by the Chief Administrative Judge, providing guidance to licensing boards regarding the appropriate standard of review to be used when making these “baseline” NEPA determinations, the Commission stated that “licensing boards must reach their own independent determination on uncontested NEPA ‘baseline’ questions — i.e., whether the NEPA process ‘has been complied with,’ what is the appropriate ‘final balance among conflicting factors,’ and whether the ‘construction permit should be issued, denied or appropriately conditioned.’” CLI-05-17, 62 NRC at 45. In reaching these independent determinations, “boards should not second-guess underlying technical or factual findings by the NRC Staff,” and “[t]he only exceptions to this would be if the reviewing board found the Staff review to be incomplete or the Staff findings to be insufficiently explained in the record.” *Id.* The Commission further directed licensing boards to follow the approach set forth in *Calvert Cliffs’ Coordinating Committee, Inc. v. AEC*, in which the United States Court of Appeals for the District of Columbia Circuit stated:

The Commission’s regulations provide that in an uncontested proceeding the hearing board shall on its own determine whether the application and the record of the proceeding contain sufficient information, and the review of the application by the Commission’s regulatory staff has been adequate, to support affirmative findings on various nonenvironmental factors. NEPA requires at least as much automatic consideration of environmental factors. In uncontested hearings, the board need not necessarily go over the same ground covered in the detailed [environmental impact] statement. But it must at least examine the statement carefully to determine whether the review . . . by the Commission’s regulatory staff has been adequate. And it must independently consider the final balance among conflicting factors that is struck in the Staff’s recommendation.

449 F.2d 1109, 1118 (D.C. Cir. 1971) (footnote and internal quotation marks omitted). The Board’s findings with respect to these three “baseline” NEPA issues are set forth below.

a. Staff Compliance with Section 102(2)(A), (C), and (E) of NEPA

2.115 Upon the basis of the Board’s review of the draft environmental impact statement, the FEIS, and other elements of the record of this proceeding, the Board concludes that (1) the Staff utilized a systematic, interdisciplinary approach integrating their use of the natural and social sciences in their decisionmaking regarding environmental impacts as required under NEPA; and (2) the Staff has complied with the requirements set forth in section 102(2)(A), (C), and (E) of

NEPA.⁵⁵ The FEIS documents the Staff's environmental review, in which the Staff considered the potential environmental impacts of the proposed facility. Specifically, we have reviewed the Staff's consideration of the following subjects and impacts: public and worker health, the need for the facility, alternatives to the proposed action, waste management, depleted uranium disposition, water resources, geology and soils, compliance with applicable regulations, air quality, transportation, accidents, land use, socioeconomic impacts, noise, visual and scenic resources, costs and benefits, environmental justice, cultural resources, resource commitments, ecological resources, decommissioning, and cumulative impacts. *See* FEIS at 1-7. The Staff utilized the expertise of professional scientists, engineers, and social scientists in conducting its review. *See id.* at 9-1 to 9-5. We concur with the Staff's conclusions, which we find well-documented and logical, and we hereby adopt those conclusions.

2.116 Section 102(2)(C) of NEPA requires a federal agency to address in its environmental impact statement: (1) the environmental impact of the proposed action; (2) any unavoidable adverse impacts associated with implementation of the proposed action; (3) alternatives to the proposed action; (4) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and (5) any irreversible and irretrievable commitment of resources that might result from the proposed action. *See* 42 U.S.C. § 4332(2)(C). The Board has reviewed the FEIS and finds that the Staff has complied with these requirements in performing its environmental review. Chapter 2 of the FEIS describes the proposed action and examines reasonable alternatives, including the no-action alternative. *See* FEIS at 2-1 to 2-65. Chapter 4 details the potential impacts associated with the construction, operation, and decommissioning of the proposed facility. *See id.* at 4-1 to 4-89.

2.117 NEPA section 102(2)(C) also requires that an agency "consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved." 42 U.S.C. § 4332(2)(C). Based upon our review of the FEIS, we find that the Staff has complied with this requirement. Section 1.5.6 of the FEIS details each entity consulted for purposes of the Staff's review. *See* FEIS at 1-19. Chapter 8 lists the agencies and persons consulted during the Staff's review. *See id.* at 8-1 to 8-4. Appendix B of the FEIS includes each consultation letter received by the Staff, and Appendices H, I, and J contain public comments received by the Staff. *See id.*, Apps. B, H, I, & J.

⁵⁵NEPA section 102(2)(A) requires all federal agencies to "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment." 42 U.S.C. § 4332(2)(A).

2.118 Finally, section 102(2)(E) of NEPA requires a federal agency to “study, develop, and describe appropriate alternatives to the recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.” 42 U.S.C. § 4332(2)(E). The FEIS includes a detailed discussion of alternatives to the proposed action. *See* FEIS ch. 2. In performing its evaluation, the Staff considered the no-action alternative, alternative sites, alternative sources of LEU, alternative enrichment technologies, alternatives for DUF₆ disposition, and alternative deconversion technologies. *See id.* Based upon our review of these sections of the FEIS, the Board finds that the Staff has met its obligations under NEPA with respect to consideration of alternatives.

b. Independent Consideration of the Final Balance Among Conflicting Factors

2.119 In section 2.4 of the FEIS, the Staff concludes that the overall benefits of the proposed facility outweigh the environmental disadvantages and costs. *See* FEIS at 2-46. As support for this conclusion, the Staff cites three principal considerations: (1) the demonstrated need for an additional, reliable, economical, domestic source of enrichment services; (2) the moderate beneficial economic impacts of the proposed NEF on the local communities; and (3) the small impacts of the proposed action on the physical environment and human communities, and the small to moderate short-term impacts associated with construction traffic, accidents, and waste management. *See id.* The Board has reviewed the record in this proceeding, and we have conducted an independent “weighing” of the environmental costs of the proposed facility against its benefits. Based upon this independent analysis, the Board concurs with the Staff’s determination, as set forth in the FEIS, that the various benefits of the proposed NEF outweigh its environmental costs.

c. Ultimate NEPA Determination Regarding License Issuance

2.120 The Board has undertaken, without second-guessing technical and factual findings by the Staff, an independent review of the LES application with respect to the three NEPA “baseline” questions. Based upon our review of the FEIS and the record of this proceeding, the Board agrees with the Staff that the proposed mitigation measures and the environmental monitoring program (described in FEIS Chapters 5 and 6) would eliminate or substantially lessen any potential adverse environmental impacts associated with the proposed action. Accordingly, the Board agrees with the Staff’s recommendation that the license be issued to LES.

III. SUMMARY FINDINGS OF FACT AND CONCLUSIONS OF LAW

3.1 The Board has, in attempting to fulfill its mandatory hearing obligations discussed above, reviewed the material portions of the record in this proceeding, and required the Staff and LES to provide additional testimony and documentary evidence with respect to certain areas wherein that review indicated to the Board that additional information was needed to enable the requisite determinations. Based upon that review, we have reached the following determinations:

A. With respect to safety issues, the Board has determined that the application and the record of the proceeding contain sufficient information, and that the review of the application by the Staff has been adequate, to support findings in accordance with paragraph II.D of the Commission's January 2004 notice of hearing, *see also* 10 C.F.R. § 2.104(b)(1)(i)-(iv) and (b)(2)(i), that (1) LES has sufficiently described the proposed facility, processes, technical and design information, and safety features and components; (2) LES is technically qualified to design and construct the proposed NEF; (3) LES is financially qualified to design and construct the proposed NEF. Therefore the Board concludes that the issuance of a permit for the construction of the proposed NEF will not be, on the basis of any of the foregoing factors, inimical to the common defense and security or to the health and safety of the public.

B. With respect to environmental issues, the Board has determined that the review conducted by the Staff pursuant to 10 C.F.R. Part 51 has been adequate, in accordance with paragraph II.E of the Commission's January 2004 hearing notice, *see also* 10 C.F.R. § 2.104(b)(2)(ii). In addition, the Board finds that (1) the requirements of sections 102(2)(A), (C), and (E) of NEPA have been satisfied; (2) having conducted its own independent balancing of the conflicting environmental and other factors, including, without limitation, costs and benefits of the proposed facility, the overall balance supports issuance of the license; and (3) protection of the environment does not require denial or any further conditioning of the license. The Board thus concludes that these factors support issuance of the requested license.

4.1 For the foregoing reasons, it is this twenty-third day of June 2006, ORDERED, that, in accordance with 10 C.F.R. § 2.340, this Final Partial Initial Decision shall become immediately effective. Further, in accordance with 10 C.F.R. § 2.713, this Decision shall constitute the final Decision of the Commission forty (40) days from the date of issuance, or on *Wednesday, August 2,*

2006, unless a petition for review is filed in accordance with 10 C.F.R. § 2.341, or unless the Commission directs otherwise.

THE ATOMIC SAFETY AND
LICENSING BOARD⁵⁶

G. Paul Bollwerk, III, Chairman
ADMINISTRATIVE JUDGE

By G. Paul Bollwerk, III for:
Paul B. Abramson
ADMINISTRATIVE JUDGE

Charles N. Kelber
ADMINISTRATIVE JUDGE

Rockville, Maryland
June 23, 2006

⁵⁶Copies of this Final Partial Initial Decision were sent this date by Internet e-mail transmission to counsel for (1) Applicant LES; (2) Intervenors NIRS/PC; (3) NMED and the AGNM; and (4) the Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alex S. Karlin, Chairman
Dr. Anthony J. Baratta
Lester S. Rubenstein

In the Matter of

Docket No. 50-271-OLA
(ASLBP No. 04-832-02-OLA)

ENTERGY NUCLEAR VERMONT
YANKEE, LLC, and ENTERGY
NUCLEAR OPERATIONS, INC.
(Vermont Yankee Nuclear Power
Station)

June 23, 2006

In this proceeding concerning an application for a power increase to the operating license of the Vermont Yankee Nuclear Power Station, the Board finds that the submission by the Department of Public Service of the State of Vermont (State) is a settlement agreement that is subject to, and that satisfies, the requirements of 10 C.F.R. § 2.338 and therefore, the Board approves the settlement agreement, dismisses State Contentions 1 and 2, and accepts the State's withdrawal with prejudice. The Board also denies New England Coalition's request that the Board act *sua sponte* and continue the litigation on the State's contentions.

RULES OF PRACTICE: SETTLEMENT

A notice of withdrawal combined with an attached memorandum of understanding whereby the Applicant agrees to perform certain actions and testing, in return for which the Intervenor agrees to withdraw, with prejudice, from the

litigation, constitutes a *quid pro quo* arrangement which is a settlement agreement within the meaning of 10 C.F.R. § 2.338.

RULES OF PRACTICE: SETTLEMENT

The form, content, and board approval provisions of 10 C.F.R. § 2.338 are not limited to settlement agreements achieved via alternative dispute resolution (ADR), but apply to all settlement agreements that purport to be binding on the proceeding and that are submitted to a board after the notice of hearing. The plain language of 10 C.F.R. § 2.338(a), (g), (h), and (i) simply uses the terms “settlement” or “settlement agreement” and makes no reference or suggestion that these provisions and requirements are limited to that small subset of settlements achieved via ADR. Rather the regulatory history supports the view that section 2.338 is a regulation of general applicability, stating that “Section 2.338 is a new provision that consolidates and amplifies the previous rules pertaining to settlement (10 CFR 2.203, 2.759, 2.1241).” Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182, 2225 (Jan. 14, 2004). Nothing in these previous regulations limited their application to settlement agreements reached through a third-party neutral.

RULES OF PRACTICE: SETTLEMENT

A *quid pro quo* settlement agreement that is submitted to the Board and that would result in the withdrawal, with prejudice, of a party, is an agreement that would be “binding in the proceeding” within the meaning of 10 C.F.R. § 2.338(i).

RULES OF PRACTICE: SETTLEMENT

Any settlement agreement that would have a binding effect on the proceeding and that is reached after the notice of hearing must be in the form specified in 10 C.F.R. § 2.338(g), must have the content specified in 10 C.F.R. § 2.338(h), and must be submitted to the presiding officer for his or her approval under 10 C.F.R. § 2.338(i).

RULES OF PRACTICE: SETTLEMENT

The opponents of a settlement may not simply object to settlement in order to block it, but must show some substantial basis for disapproving the settlement or the existence of some material issue that requires resolution. The burden is on the opponent of a settlement to come forward and show that the public interest requires the rejection of the settlement and the adjudication of the issues. This

is aptly expressed in the current formulation of the rule, which states that the presiding officer “may order the adjudication of the issues [if it is] required in the public interest.” 10 C.F.R. § 2.338(i).

RULES OF PRACTICE: SETTLEMENT

The Commission has set forth the following factors to be considered when deciding whether a settlement in an enforcement proceeding is in the public interest: (1) whether, in view of the risks and benefits of further litigation, the settlement result appears unreasonable; (2) whether the terms of the settlement appear incapable of effective implementation and enforcement; (3) whether the settlement jeopardizes the public health and safety; and (4) whether the settlement approval process deprives interested parties of meaningful participation. *See Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 209-23 (1997)*. We apply the *Sequoyah Fuels* factors in determining whether the proposed settlement in this licensing proceeding is in the public interest.

RULES OF PRACTICE: SETTLEMENT

The silence of 10 C.F.R. § 2.338(i) as to the process for determining whether a proposed settlement is in the “public interest” indicates that the Commission intended to leave it to the discretion of the Board to determine how to make this determination.

MEMORANDUM AND ORDER (Approving Settlement Agreement, Granting Dismissal of Contentions, and Accepting Withdrawal of Vermont Department of Public Service)

Before the Board is a submission by Intervenor Department of Public Service of the State of Vermont (State) requesting dismissal of its two contentions, noticing its withdrawal as a party, and providing the Board with a memorandum of understanding and addendum, signed by the State and the Applicants Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (collectively, Entergy). Finding that the State’s submission is a settlement agreement that satisfies the requirements of 10 C.F.R. § 2.338 and that the public interest does not require the adjudication of the State’s contentions, the Board approves the settlement agreement, dismisses State Contentions 1 and 2, and accepts the withdrawal of the State from this proceeding. In addition, we deny New England

Coalition's (NEC's) request that we act *sua sponte* and continue the litigation on the State's contentions.

I. BACKGROUND

On May 2, 2006, the State filed a notice of withdrawal and request for dismissal of its contentions.¹ Attached to the Notice was an agreement or "memorandum of understanding" (MOU), signed by the State and Entergy, which included eleven points of agreement or stipulations.²

In response, the Board convened a conference call on May 3, 2006, and expressed both its encouragement of the settlement and its concern that 10 C.F.R. § 2.338(g) and (h) seemed to impose certain form and content requirements on such settlement agreements. Tr. at 916-17. During the conference call, the State acknowledged that it was not aware of the requirements of 10 C.F.R. § 2.338, Tr. at 919, but stated that it did not believe it would be problematic to amend the MOU to satisfy these requirements, Tr. at 936. Entergy maintained that section 2.338 was not applicable, asserting that the regulation applies only to settlements reached via alternative dispute resolution facilitated by third-party neutrals and that the Board may not stand in the way of a party that wishes to withdraw from a proceeding. Tr. at 917-19, 930-32. The NRC Staff tentatively agreed with Entergy's assertion that section 2.338 applies only to settlements reached through the assistance of a third-party neutral, but seemed to suggest that the Board must nonetheless approve a settlement reached without the assistance of a third-party neutral. Tr. at 929-30. NEC expressed the opinion that, by its own terms, section 2.338 appeared to apply to all settlement agreements regardless of the manner in which they were reached.³ Tr. at 939.

Recognizing that the parties had not previously considered these issues, the Board gave the State and Entergy two options. First, the parties could submit briefs addressing three issues related to the applicability of 10 C.F.R. § 2.338. Alternatively, the State and Entergy could revise and resubmit the Notice and MOU so that they would comply with the requirements of section 2.338(h). The latter option was made with the understanding that the Board's subsequent ruling would not serve as binding precedent or as the law of the case in this proceeding

¹ Notice of Withdrawal and Request for Dismissal of Contentions of the Vermont Department of Public Service (May 2, 2006) (Notice).

² Notice, Exh. A, Memorandum of Understanding (May 2, 2006) (MOU).

³ The Board had previously rejected NEC's proposal to adopt State Contentions 1 and 2 as not conforming to the requirements of 10 C.F.R. § 2.309(f)(3). Licensing Board Memorandum and Order (Denying Incorporation by Reference and Additional Discovery Disclosure) (Feb. 16, 2005) (unpublished).

and that the parties would not be waiving their positions on this issue. Tr. at 942-48.

On May 9, 2006, the State and Entergy chose to submit an Amended Notice intended to satisfy 10 C.F.R. § 2.338.⁴ The State's submission was essentially identical to its filing on May 2, 2006, except that the Amended Notice included an addendum to the original MOU that supplemented the MOU's eleven stipulations with four additional stipulations aimed at satisfying the content requirements of section 2.338(h).⁵

On May 10, 2006, the Board issued an order setting May 22, 2006, as the deadline for any comments from the public supporting or objecting to the Amended Notice and MOU Addendum.⁶ On that date, Entergy and the NRC Staff filed comments supporting the proposed resolution and withdrawal of the State's contentions based on the fact that the agreement was in the public interest.⁷ NEC objected, arguing that the public interest requires that the Board take up State Contentions 1 and 2 *sua sponte*.⁸ Contrary to our instructions of May 3, 2006, either to submit a revised agreement *or* to brief the issues, Entergy went on to brief the legal issues. Entergy argued that the MOU Addendum is not a settlement within the meaning of section 2.338 because that section is intended to apply only to settlement agreements that are intended to be binding in the proceeding and that are facilitated by third-party neutrals or supervised by the Board. Entergy Response at 5-9. Therefore, according to Entergy, the State's withdrawal of its contentions and from the proceeding requires no further action by the Board. *Id.* at 10-13.⁹

During the May 23, 2006 prehearing conference call, the Board informed the parties that it granted the withdrawal and approved the settlement of State Contentions 1 and 2 and that a written ruling would be forthcoming. Tr. at 984. Because Entergy chose to brief the legal issues, however, we find it appropriate

⁴ See Amended Notice of Withdrawal and Request for Dismissal of Contentions of the [State] (May 9, 2006) (Amended Notice).

⁵ Amended Notice, Exh. A, Memorandum of Understanding (May 2, 2006); Exh. B, Addendum to MOU (May 9, 2006) (collectively, the MOU and the addendum thereto are referred to herein as the MOU Addendum).

⁶ Licensing Board Order (Granting Joint Motion To Suspend Certain Filing and Discovery Obligations and Setting Certain Deadlines) (May 10, 2006) (unpublished).

⁷ Entergy's Response to Board's May 10, 2006 Order Regarding DPS's Amended Notice of Withdrawal (May 22, 2006) at 13-16 (Entergy Response); NRC Staff's Response to the Atomic Safety and Licensing Board's Order of May 10, 2006 (May 22, 2006) at 1.

⁸ [NEC]'s Comments Regarding a Proposed Settlement of [State] Contentions and [NEC]'s Request for a Determination That Continued Adjudication of the Issues Raised in the [State]'s Contentions Is in the Public Interest (May 22, 2006) at 5 (NEC Comments).

⁹ Entergy requested that, if the Board decided not to dismiss the State's contentions, then we should certify the matter to the Commission for resolution. *Id.* at 15-16.

to set out the legal analysis we use in reaching our decision regarding the application of 10 C.F.R. § 2.338 and our approval of this Amended Notice and MOU Addendum.¹⁰

II. FRAMEWORK FOR SETTLEMENTS

The Commission has a long history of encouraging the fair and reasonable settlement of contested licensing proceedings.¹¹ This policy is now expressed in 10 C.F.R. § 2.338, adopted in 2004, which states that “[t]he fair and reasonable settlement and resolution of issues proposed for litigation in proceedings subject to this part is encouraged.”¹² In relevant part, section 2.338 further states:

(a) Availability. The parties shall have the opportunity to submit a proposed settlement of some or all issues to the Commission or presiding officer, as appropriate, or submit a request for alternative dispute resolution under paragraph (b) of this section.

....

(e) Imposition of additional requirements. The presiding officer (or Settlement Judge) may impose on the parties and persons having an interest in the outcome of the adjudication additional requirements as the presiding officer (or Settlement Judge) finds necessary for the fair and efficient resolution of the case.

....

(g) Form. A settlement must be in the form of a proposed settlement agreement, a consent order, and a motion for its entry that includes the reasons why it should be accepted. It must be signed by the consenting parties or their authorized representatives.

(h) Content of settlement agreement. The proposed settlement agreement must contain the following:

- (1) An admission of all jurisdictional facts;
- (2) An express waiver of further procedural steps before the presiding officer, of any right to challenge or contest the validity of the order entered into in accordance with the agreement, and of all rights to seek judicial review or otherwise to contest the validity of the consent order;

¹⁰Because no one else briefed these issues, and in light of our May 3, 2006 statement, our ruling on the applicability of section 2.338 will not be binding if another withdrawal or settlement arises herein.

¹¹ *Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 19 (1998); *Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 455-56 (1981).

¹²Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182, 2249-50 (Jan. 14, 2004). Although section 2.338 is a “new provision” that was added in 2004, the Statement of Considerations for these changes makes clear that it “consolidates and amplifies the previous rules pertaining to settlement (10 CFR 2.203, 2.759, 2.1241).” 69 Fed. Reg. at 2225.

(3) A statement that the order has the same force and effect as an order made after full hearing; and

(4) A statement that matters identified in the agreement, required to be adjudicated have been resolved by the proposed settlement agreement and consent order.

(i) Approval of settlement agreement. Following issuance of a notice of hearing, a settlement must be approved by the presiding officer or the Commission as appropriate in order to be binding in the proceeding. The presiding officer or Commission may order the adjudication of the issues that the presiding officer or Commission finds is required in the public interest to dispose of the proceeding. . . .

In short, 10 C.F.R. § 2.338 provides that parties may submit a proposed settlement to the Board (paragraph (a)), authorizes the Board to impose additional requirements as part of a settlement (paragraph (e)), mandates certain form requirements for a settlement agreement (paragraph (g)), and mandates certain content requirements for a settlement agreement (paragraph (h)). Assuming these form and content requirements are met, 10 C.F.R. § 2.338(i) provides the standards for approval of a settlement.¹³

When paragraphs (e) and (i) are read together, it becomes clear that the Board has several options when it comes to reviewing a settlement. A Board may approve the settlement as is, it may impose additional requirements on the settlement, or it may reject the settlement and order an adjudication. Given the Commission's policy of encouraging settlement, this Board does not prefer the last option. Commission case law holds that the opponents of a settlement "may not simply object to settlement in order to block it, but must show some substantial basis for disapproving the settlement or the existence of some material issue that requires

¹³ An examination of the Commission's regulations prior to the 2004 changes reveals that paragraph (a) (except for the references to the new provisions on ADR) and paragraph (i) were already essentially codified under the old rules. *See* 10 C.F.R. § 2.203 (2003) (stating that a "stipulation or compromise" in an enforcement proceeding "shall be subject to approval by the designated presiding officer," that the "presiding officer . . . may order such adjudication of the issues as he may deem to be required in the public interest," and "[i]f approved, the terms of the settlement or compromise shall be embodied in a decision or order settling and discontinuing the proceeding"); 10 C.F.R. § 2.759 (2003) (stating that the "Commission recognizes that the public interest may be served through settlement of particular issues in a proceeding or the entire proceeding"); 10 C.F.R. § 2.1241 (2003) (stating that a settlement in an informal proceeding "must be approved by the presiding officer or the Commission as appropriate in order to be binding in the proceeding"). *Paragraphs (g) and (h), the form and content requirements, however, are new requirements for which there was no parallel provision in the old rules.* The 2004 amendment also created paragraph (b), which allows the parties by joint motion to request the appointment of a settlement judge to conduct settlement negotiations or to refer the proceeding to ADR.

resolution.”¹⁴ The burden is on the opponent of a settlement to come forward and show that the public interest requires the rejection of the settlement and the adjudication of the issues. This is aptly expressed in the current formulation of the rule, which states that the presiding officer “may order the adjudication of the issues [if it is] required in the public interest.” 10 C.F.R. § 2.338(i).

Although the regulations are silent as to what factors are to be considered in making this public interest determination, the Commission has set forth factors to consider when evaluating a settlement in an enforcement proceeding. *See Sequoyah Fuels*, CLI-97-13, 46 NRC at 209-23. The Commission divided the public interest question into four parts: (1) whether, in view of the risks and benefits of further litigation, the settlement result appears unreasonable; (2) whether the terms of the settlement appear incapable of effective implementation and enforcement; (3) whether the settlement jeopardizes the public health and safety; and (4) whether the settlement approval process deprives interested parties of meaningful participation. *Id.* at 209.

Although these factors were adopted by the Commission in an enforcement context, the Commission derived these factors from an array of federal court settlement approval decisions that dealt with settlements ranging from public school desegregation class actions to antitrust enforcement suits.¹⁵ Given the diversity of these cases and the fact that we find these factors to be useful in determining whether there is some substantial public interest reason to reject the settlement in a licensing proceeding, we adopt the *Sequoyah Fuels* factors for the purpose of deciding the issues currently before us.

The regulations do not specify what process, if any, boards should use in determining whether the adjudication of the contention is “required in the public interest.” 10 C.F.R. § 2.338(i). Should the board give the public the opportunity to comment? For example, it is the policy of the U.S. Department of Justice to allow 30 days for public comment prior to the settlement of most environmental enforcement cases. *See* 28 C.F.R. § 50.7. Likewise, in some types of Federal litigation, public comment is statutorily required.¹⁶ Alternatively, the board could

¹⁴ *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 71 n.10 (1994). *See also Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 208 (1997) (“Only if the settlements’ opponents show some ‘substantial’ public-interest reason to overcome that presumption will we undo the settlements”).

¹⁵ *See id.* at 209 n.11 (citing *Massachusetts School of Law at Andover v. United States*, 118 F.3d 776 (D.C. Cir. 1997) (antitrust enforcement); *United States v. Microsoft*, 56 F.3d 1148 (D.C. Cir. 1995) (antitrust enforcement); *Armstrong v. Board of School Directors of City of Milwaukee*, 616 F.2d 305 (7th Cir. 1980) (public school desegregation class action); *Girsh v. Jepson*, 521 F.2d 153 (3d Cir. 1975) (SEC class and derivative actions); *City of Detroit v. Grinnell*, 495 F.2d 448 (2d Cir. 1974) (private antitrust class action)).

¹⁶ *See, e.g.*, 42 U.S.C. § 9622(i)(1) (requiring public notice and comment for administrative settlements under the Comprehensive Environmental Response, Compensation, and Liability Act).

allow comment only from the parties (who, if they are all settling, will always urge approval) or could take no comment at all, and simply decide the public interest according to the board's own best lights.

The silence of 10 C.F.R. § 2.338(i) as to the process for determining whether a proposed settlement is in the "public interest" indicates that the Commission intended to leave it to the discretion of the Board to determine *how* to make this determination. Here we considered the nature of the contentions, the identity of the proposed settlers, and the degree of media and public concern in the case, in determining whether to invite public or party comment on the proposed settlement. We believe that the process used here, whereby the public was given the opportunity to submit written comments relating to the settlement, assisted the Board in making the "public interest" determination under section 2.338(i).

III. ANALYSIS OF THE AGREEMENT BETWEEN THE STATE AND ENTERGY

We now turn to the State's submissions, whereby the State withdraws from this proceeding with prejudice (the Amended Notice) and submits into the docket herein the full agreement between the State and Entergy, including all of the terms thereof (the MOU Addendum). We analyze State's submissions in three steps. First, we determine whether they constitute a "settlement agreement." Second, we examine whether the Amended Notice and MOU Addendum are subject to the requirements of 10 C.F.R. § 2.338. Third, we determine whether the Amended Notice and MOU Addendum meet the requirements of section 2.338.

A. Settlement Agreement

First, in order to ascertain whether the Commission's settlement regulations may apply, we examine whether the filing before the Board is indeed a settlement agreement. "A 'settlement agreement' is an agreement to terminate, by means of mutual concessions, a claim which is disputed in good faith or unliquidated." 15A Am. Jur. 2d *Compromise and Settlement* § 1 (2005). The Amended Notice states that the State and Entergy "have agreed to mutually satisfactory resolution of the issues raised by the State in this proceeding, as evidenced by the Memorandum of Understanding and the Addendum to the Memorandum of Understanding." Amended Notice ¶ 1. The MOU Addendum is an agreement whereby Entergy is required to perform certain tests and to make certain information available to the State, MOU Addendum ¶¶ 1-6, and the State is required to withdraw from this proceeding and ensure that its contentions are dismissed with prejudice, MOU Addendum ¶ 7. Such a *quid pro quo* arrangement clearly constitutes a settlement agreement because Entergy has agreed to perform activities that it

would otherwise not need to perform and, in exchange, the State has agreed to the final resolution of all contested issues between it and Entergy in this uprate proceeding.¹⁷ The labels on the documents, i.e., “Amended Notice” and a “MOU Addendum,” are not determinative. Instead, we look at the substance of what the parties have filed in this proceeding to determine what it is. Any other approach would improperly elevate form over substance. We conclude that the Amended Notice and the accompanying MOU Addendum constitute a settlement agreement.

B. Applicability of 10 C.F.R. § 2.338

Second, we turn to the question of whether the proposed settlement agreement is subject to 10 C.F.R. § 2.338. We have no difficulty in concluding that it is. First, we reject Entergy’s argument that the form, content, and Board approval provisions of 10 C.F.R. § 2.338 apply only to settlement agreements achieved via alternative dispute resolution (ADR). The plain language of 10 C.F.R. § 2.338(a), (g), (h), and (i) simply uses the terms “settlement” or “settlement agreement” and makes no reference or suggestion that these provisions and requirements are limited to that small subset of settlements achieved via ADR. While section 2.338 also establishes a mechanism for the use of ADR, the regulation is not restricted to the subject of ADR. At the outset, the regulation gives the parties two options, *either* (1) submit a proposed settlement to the Board *or* (2) submit a request for ADR to the Board. 10 C.F.R. § 2.338(a). Nothing in the language or regulatory history of the regulation suggests that the application of 10 C.F.R. § 2.338(c)-(i) is limited to settlement agreements reached via a settlement judge or ADR.¹⁸ In fact, the regulatory history supports the view that section 2.338 is a regulation of general applicability, which, through paragraph (b), also provides the opportunity to reach a settlement through certain specific methods of dispute resolution. The Statement of Considerations indicates that “Section 2.338 is a new provision that consolidates and amplifies the previous rules pertaining to settlement (10 CFR 2.203, 2.759, 2.1241).” 69 Fed. Reg. at 2225. Nothing in these previous

¹⁷ We recognize that there are agreements on lesser matters (e.g., scope of a contention, resolution of evidentiary objections, withdrawal of a particular argument), that do not rise to the level of settlement agreements subject to the requirements of 10 C.F.R. § 2.338. Here, however, the proposed agreement is major and fundamental, calling for the complete withdrawal of the State of Vermont (a heretofore important party to this litigation), the dismissal with prejudice of the State’s admitted contentions, and the termination of litigation for the State.

¹⁸ The semicolon in the title of the regulation (“Settlement of issues; alternative dispute resolution”) is, at most, equivocal.

regulations limited their application to settlement agreements reached through a third-party neutral.¹⁹

Entergy correctly observes that, under the pre-2004 regulations, there is a line of cases that holds that the withdrawal of a party from a proceeding results in the removal of the withdrawing party's contentions from litigation.²⁰ However, we do not read those cases as standing for the proposition that a party's request to withdraw from a proceeding *automatically* results in dismissal of that party's contentions. Rather, we read those cases as holding that when a party withdraws from a proceeding, its contentions do not necessarily continue as important safety issues requiring litigation under a Board's *sua sponte* authority.²¹ For example, in *South Texas*, the Appeal Board held that the initial admission of a contention does not automatically establish the existence of a serious environmental or safety issue for purposes of a board exercising its authority to raise an issue *sua sponte*. *South Texas*, ALAB-799, 21 NRC at 382. That Appeal Board also made clear that a party that had not previously adopted the withdrawing party's contention may replace the withdrawing party upon a favorable balancing of the nontimely factors. *Id.* at 381-84. Neither of those circumstances exist here, as we are satisfied that the settlement of the State's contentions does not jeopardize public health and safety and because NEC has failed to demonstrate that 10 C.F.R. § 2.309(c) factors weighs in its favor. *See* Section IV, *infra*.

As Entergy points out, there are licensing board cases that state that a board need not review and approve a settlement agreement. These cases are neither binding precedent nor supported by the new regulation, which states “[f]ollowing issuance of a notice of hearing, a *settlement must be approved by the presiding officer* or Commission as appropriate in order to be binding in the proceeding.” 10 C.F.R. § 2.338(i) (emphasis added). It may be that the settlements cited by

¹⁹There was no mention of settlement judges or ADR in these old rules because prior to 2004, the Commission's endorsement of such forms of conflict resolution was found in case law rather than the regulations. *Id.* at 2210 (citing *Rockwell International Corp.* (Rockeydyne Division), CLI-90-5, 31 NRC 337 (1990)). Because the Commission was only “consolidating” and “amplifying” its previous regulations in most of section 2.338, it is logical that discussion of these already established rules was unnecessary. However, because paragraph (b), which deals with settlement judges and ADR, was a “new” provision, it is sensible that the Commission would find it necessary to discuss this addition at length. An examination of the Statement of Considerations reveals exactly this course of events. *Id.* at 2209-10, 2225.

²⁰*See, e.g., Houston Lighting & Power Co.* (South Texas Projects, Units 1 and 2), ALAB-799, 21 NRC 360, 382-83 (1985); *Power Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), LBP-00-34, 52 NRC 361, 363 (2000).

²¹In 2004 the Commission amended the regulations allowing a Board to examine an issue *sua sponte* “only where . . . the Commission approves such examination and decision upon referral of the question” to the Commission. 10 C.F.R. § 2.340(a); 69 Fed. Reg. at 2250. The pre-2004 regulations had no such requirement. *See* 10 C.F.R. § 2.760a (2003).

Entergy occurred before the notice of hearing was issued.²² It may be that the settlement agreement was not submitted to a board or filed on the formal record, or was not binding on the proceeding, such as where a party simply withdraws without notifying a board of its reasons. This is not the course that the State and Entergy took in this instance, for the Board in this case was given the reasons why the State wished to withdraw and was given the settlement agreement and associated withdrawal.

It is also clear that this settlement agreement is “binding in the proceeding.” 10 C.F.R. § 2.338(i). Prior to the Amended Notice and MOU Addendum, the State was a party with two contentions which were to be litigated and decided by the Board. Now, at the State’s behest and as required by the settlement agreement, the State has been dismissed with prejudice (i.e., with no opportunity to refile or renew its contentions herein), and the merits of its contentions will not be litigated in public or decided by the Board. The dismissal with prejudice is (if the settlement agreement is approved by this Board) binding herein.

Finally, we can conceive of no logic or policy reason why the form, content, and approval requirements of 10 C.F.R. § 2.338 would apply only to settlement agreements reached via ADR. This would be contrary to all prior regulations and practice and would exclude the vast majority of settlements, which are reached without ADR. And if so excluded (and recognizing that prior sections 2.203, 2.759, and 2.1241 are deleted), non-ADR settlements would seem to be exempt from all authority of the presiding officer or Commission.

C. Application of 10 C.F.R. § 2.338

Third, having found that the Amended Notice and MOU Addendum constitute a settlement agreement and that 10 C.F.R. § 2.338 is applicable to it, we now determine whether it satisfies the pertinent parts of the regulation. Specifically, we focus on section 2.338(g) and (h), the form and content requirements, and then on whether the settlement may be approved or whether the adjudication of these contentions is “required in the public interest” pursuant to section 2.338(i).

1. 10 C.F.R. § 2.338(g) and (h): Form and Content

Section 2.338(g) requires that a settlement “be in the form of a proposed settlement agreement, a consent order, and a motion for its entry that includes the reasons why it should be accepted.” Although the State’s submission does not

²²The notice of hearing was issued in this case on April 10, 2006. *See* Notice of Hearing and of Opportunity To Make Oral or Written Limited Appearance Statements Concerning Proposed Uprate, 71 Fed. Reg. 19,549 (Apr. 14, 2006).

use the exact phrases suggested in paragraph (g), we find those requirements are satisfied because the Amended Notice and MOU Addendum constitute a written agreement between the State and Entergy that was submitted for the Board's imprimatur. Furthermore, the filing clearly explains the reasons why the State's two admitted contentions should be dismissed.

Additionally, section 2.338(g) requires that a settlement "be signed by the consenting parties or their authorized representatives." The Withdrawal and MOU Addendum meet this requirement, as the MOU Addendum is signed by David O'Brien, Commissioner of the Vermont Department of Public Service, and Jay K. Thayer, Vice President of Operation and a duly authorized agent for Entergy.²³

The requirements of paragraph (h) are satisfied by the MOU Addendum, which concedes that the Board has jurisdiction over the parties and over the subject matter of the MOU Addendum and waives all further procedural steps before the Board, all rights to challenge or contest the validity of this order, and all rights to seek judicial review or otherwise contest the validity of this order. MOU Addendum ¶¶ 12-13. Further, the MOU Addendum states that this order has the same force and effect as an order made after full hearing and that matters identified in the agreement, required to be adjudicated, have been resolved by the proposed settlement agreement and this order. MOU Addendum ¶¶ 14-15.

2. 10 C.F.R. § 2.338(i): Public Interest Determination

As previously discussed in Section II, *supra*, in order to be binding in the proceeding, a settlement proposal must be approved of by the presiding officer. 10 C.F.R. § 2.338(i). The presiding officer may order the adjudication of the issues agreed upon in the proposed settlement agreement upon a finding that the public interest requires such an adjudication. 10 C.F.R. § 2.338(i). Applying the four factors set forth in *Sequoyah Fuels*, we find that the public interest does not require adjudication of the State's contentions, and thus approve the proposed settlement agreement.

First, considering the risks in future litigation, the settlement agreement appears reasonable. As a result of the settlement, the MOU Addendum requires that Entergy perform testing and inspections and provide the State with data and documentation related to the State's containment concerns. MOU Addendum ¶¶ 1-6. If the proceeding on the State's containment contentions were to move forward, there is the chance that the State might not prevail on the merits and thus

²³ MOU Addendum at 4 (Exh. A). *See also* MOU Addendum at 2 (Exh. B) (signed by Sarah Hofmann, Director of Public Advocacy for the State, and Jay E. Silberg, counsel for Entergy).

would be denied all relief. Therefore, based on the risks of moving forward and litigating the contentions, we find that the settlement agreement is reasonable.

Second, the terms of the settlement agreement appear capable of being enforced and no party has suggested otherwise.²⁴ Furthermore, the NRC Staff stated that the enforcement of the terms of the MOU in court would not impinge upon the NRC's authority as a regulator. Tr. at 983. Therefore, we find that the terms of the settlement appear capable of effective implementation and enforcement.

Third, the settlement agreement does not jeopardize public health and safety. The NRC Staff and the Advisory Committee on Reactor Safeguards have both reviewed the State's concerns and determined that the overall risks associated with the uprate and the risks associated with the requested credit for containment overpressure are both small.²⁵ We find it particularly persuasive that the settling party is the State of Vermont, an independent governmental entity that is responsible for the health and safety of the public and is well represented in this proceeding. See Amended Notice ¶ 5. Further, the MOU Addendum appears to add to (not detract from) the public health and safety because it requires additional inspection activities. Therefore, we find that the settlement agreement does not jeopardize public health and safety.

Fourth, the settlement does not deprive other interested parties of meaningful participation. NEC, the remaining intervenor in this proceeding, and the only entity to object to the settlement, had the opportunity earlier in this proceeding to adopt the State's contentions, but failed to do so.²⁶

IV. *SUA SPONTE* CONTINUATION OF STATE CONTENTIONS

We reject NEC's request that we take up *sua sponte* the issues raised in State Contentions 1 and 2. "Matters not put into controversy by the parties will be examined and decided by the presiding officer only where he or she determines that a serious safety, environmental, or common defense and security matter exists, and the Commission approves such an examination and decision upon referral of the question by the presiding officer." 10 C.F.R. § 2.340(a). Having found that the adjudication of the State's contentions is not "required in the public interest," we also conclude that its settlement does not raise serious safety,

²⁴The MOU Addendum is governed by Vermont law. MOU Addendum ¶ 10.

²⁵See Notice of Issuance of Amendment to Facility Operating License and Final Determination of No Significant Hazards Consideration, 71 Fed. Reg. 11,682 (Mar. 8, 2006).

²⁶For example, NEC, as the proposed adopter, failed to acknowledge that "the sponsoring requestor/petitioner shall act as the representative with respect to that contention." 10 C.F.R. § 2.309(f)(3). See Licensing Board Memorandum and Order (Denying Incorporation by Reference and Additional Discovery Disclosure) (Feb. 16, 2005) (unpublished).

environmental, or common defense and security concerns warranting *sua sponte* review.

Although NEC specifically noted that it was not seeking to adopt the State's contentions, NEC asks for leave to file "a new (late) contention based on new information in the MOU and its Addendum; subject to all of the criteria for late-filed contentions." NEC Comments at 5. Despite this request, NEC failed to address the 10 C.F.R. § 2.309(c) factors. Thus, NEC fails to explain why there is good cause for failing to offer containment overpressure contentions in 2004 (when the State had enough information to submit two admissible contentions on the topic), or why there is good cause for its failure to follow the simple procedures available to adopt the State's contentions. Therefore, we deny NEC's request to file late contentions.

V. CONCLUSION

For the foregoing reasons, it is ORDERED that:

1. The May 9, 2006 amended notice of withdrawal and request for dismissal of the State is *granted* and the May 2, 2006 memorandum of understanding between the State and Entergy and the May 9, 2006 addendum thereto, a copy of which is attached to and incorporated by reference in this Memorandum and Order, is approved pursuant to 10 C.F.R. § 2.338.
2. State Contention 1 and State Contention 2, are *dismissed* with prejudice.

3. The request by NEC for the Board's *sua sponte* continuation of the litigation on State Contention 1 and State Contention 2 is *denied*.

THE ATOMIC SAFETY AND
LICENSING BOARD²⁷

Alex S. Karlin, Chairman
ADMINISTRATIVE JUDGE

Anthony J. Baratta
ADMINISTRATIVE JUDGE

By G. Paul Bollwerk, III for:
Lester S. Rubenstein
ADMINISTRATIVE JUDGE

Rockville, Maryland
June 23, 2006

²⁷ Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to representatives for (1) Licensees Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.; (2) Intervenors Vermont Department of Public Service and New England Coalition of Brattleboro, Vermont; and (3) the NRC Staff.

ATTACHMENT TO LBP-06-18

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of

**Docket No. 50-271
(ASLBP No. 04-832-02-OLA)
(Operating License Amendment)**

**ENTERGY NUCLEAR VERMONT
YANKEE, LLC, and ENTERGY
NUCLEAR OPERATIONS, INC.
(Vermont Yankee Nuclear Power
Station)**

May 9, 2006

**AMENDED NOTICE OF WITHDRAWAL AND
REQUEST FOR DISMISSAL OF CONTENTIONS
OF THE VERMONT DEPARTMENT OF
PUBLIC SERVICE**

Now Comes the Vermont Department of Public Service (State) by its under-
signed counsel and, for the following reasons, voluntarily withdraws from this
proceeding and requests the dismissal with prejudice of the State's contentions.

1. The State and Applicants Entergy Nuclear Vermont Yankee, LLC and
Entergy Nuclear Operations, Inc. (Entergy) have agreed to a mutually
satisfactory resolution of the issues raised by the State in this proceeding,
as evidenced by the Memorandum of Understanding and the Addendum
to the Memorandum of Understanding (MOU) attached as Exhibit A
hereto. As explained in more detail in the MOU, the State's efforts in this
proceeding have resulted in substantial and additional attention being paid
by Entergy, the U.S. Nuclear Regulatory Commission (NRC) Staff and
the Advisory Committee on Reactor Safeguards (ACRS) to the State's
concerns about the use of containment overpressure. As a result of this
added attention and analysis, plus additional inspections and other steps
that have been agreed to by Entergy in the MOU, the State is now satisfied
that its concerns have been satisfactorily addressed.

2. In July–August 2004, the NRC Staff performed an independent engineering assessment at Vermont Yankee. As part of the assessment, the State asked that calculations regarding the adequacy of the emergency cooling pumps be reviewed. The calculations were reviewed within the scope of the inspection team’s charge and were found acceptable. The State Nuclear Engineer participated in the inspection.
3. In June 2004, the State asked that the NRC Staff perform independent calculations to verify the computer-model calculations associated with containment overpressure credit. The Final Safety Evaluation Report (SER) issued in March 2006 identifies that NRC performed independent verification calculations of the critical parts of the containment overpressure issue, giving the State confidence in the conservatisms claimed by Entergy in its containment overpressure request.
4. As part of the review of power uprate, the NRC Staff submitted requests for additional information (RAIs) of Entergy resulting in over forty supplements to the amendment request. Many of these RAIs were regarding the State’s issue of credit for containment overpressure. The State was able to review these supplements, as well as follow the NRC Staff’s review and thinking on the issue through the Advisory Committee on Reactor Safeguards (ACRS) process as well as the Draft and Final SERs. The State is satisfied that the issue raised in the State’s contentions was thoroughly reviewed.
5. The State actively participated in the Advisory Committee on Reactor Safeguards’ review of the generic issue of taking credit for containment overpressure and the site-specific review of the extended power uprate at Vermont Yankee. The State made four formal presentations to the full ACRS or the ACRS subcommittee on power uprates on the issue of containment overpressure, and was present to answer questions by the Committee and listen to its discussion and Entergy’s and the NRC Staff’s presentations on almost all the occasions on which the topic of containment overpressure credit was discussed. The ACRS, at times, required additional analysis from Entergy and the NRC Staff to fully review the issue. Ultimately, the ACRS determined that the overall risk associated with extended power uprate at Vermont Yankee is small, and that the change in risk resulting from allowing the requested containment overpressure credit is also small. The State was satisfied with the level of the review and the time spent on this issue of import.

NOW, THEREFORE, for the reasons stated herein and in the attached MOU,

the State hereby requests the dismissal with prejudice of its two admitted contentions.

Respectfully submitted,

Sarah Hofmann
Director for Public Advocacy
Department of Public Service
112 State Street–Drawer 20
Montpelier, VT 05602-2601

Anthony Z. Roisman
National Legal Scholars Law Firm
84 East Thetford Rd.
Lyme, NH 03768
Counsel for the Vermont Department
of Public Service

ADDENDUM TO MOU

This is an Addendum to the Memorandum of Understanding (“MOU”) dated May 2, 2006 between Entergy Nuclear Vermont Yankee LLC and Entergy Nuclear Operations, Inc. (collectively “VY Entergy”) and the Vermont Department of Public Service (“DPS”).

VY Entergy and DPS agree that the following four paragraphs are added to the MOU dated May 2, 2006, and that they should be considered part of the original MOU:

12. The parties to this MOU acknowledge that the NRC and the Board appointed to hear *In Re: Entergy Nuclear Vermont Yankee LLC and Entergy Nuclear Operations, Inc. (Operating License Amendment)*, Docket No. 50-271-OLA (ASLBP No. 04-832-02-OLA) have jurisdiction over the parties and over the subject matter of this MOU, including jurisdiction to take the actions sought in the attached Notice of Withdrawal and Request for Dismissal of Contentions of the Vermont Department of Public Service (Notice of Withdrawal).
13. With regard to this MOU, the parties to it expressly waive any and all further procedural steps before the Board or any right to challenge or contest the validity of any order entered by the Board in accordance with this MOU, and waive all rights to seek judicial review or otherwise to contest the validity of any order entered by the Board so long as such order is fully consistent with each provision of this MOU.
14. An order entered by the Board in accordance with this MOU will have the same force and effect as an order entered after full hearing.
15. All matters referred to in the MOU and the Notice of Withdrawal that were required to be adjudicated have been resolved by the MOU and by an order entered by the Board in accordance with the MOU.

Dated at Montpelier, this 9th day of May, 2006.

VERMONT DEPARTMENT OF
PUBLIC SERVICE

Name: Sarah Hofmann
Title: Director for Public Advocacy

ENTERGY NUCLEAR VERMONT
YANKEE, LLC

Name: Jay E. Silberg
Title: Counsel

ENTERGY NUCLEAR OPERATIONS, INC.

Name: Jay E. Silberg
Title: Counsel

MEMORANDUM OF UNDERSTANDING

This is a Memorandum of Understanding (“MOU”), dated May 2, 2006, between Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (together “Entergy VY”), and the Vermont Department of Public Service (the “DPS”).

PRELIMINARY STATEMENT

1. Entergy VY has petitioned and received approval from the Nuclear Regulatory Commission (“the NRC”) to amend its operating license to implement an extended power uprate at the Vermont Yankee Nuclear Power Station (the “Station”) which permits an increase in power of the Station from a maximum of 1593 MWt to 1912 MWt. Acting through the DPS, the State of Vermont moved to intervene and is participating in proceedings before the NRC’s Atomic Safety and Licensing Board (“Board”) on the extended power uprate amendment. The State’s efforts in this proceeding have resulted in substantial and additional attention being paid by Entergy, the NRC Staff and the Advisory Committee on Reactor Safeguards to the State’s concerns about the use of containment overpressure. As a result of this added attention and analysis, plus additional inspections and other steps that have been agreed to by Entergy in the MOU, the State is now satisfied that its concerns have been satisfactorily addressed. By this agreement, the State of Vermont, acting through the DPS, has agreed to withdraw from the Board proceedings.

STIPULATION

Entergy VY and the DPS agree as follows:

1. Entergy VY shall perform a Type A Containment Leak Rate Test (the “Type A Test”) during the Station’s refueling outage in 2010 (the “Outage”) and make the results available to the DPS within 60 days of the Outage’s completion.
2. During the period between the date of this MOU and completion of the Type A Test in 2010, Entergy VY shall provide to the DPS weekly readings of nitrogen usage at the Station as an indication of containment integrity in a format jointly agreed upon by Entergy VY and DPS.
3. During and following the completion of the refueling outages currently scheduled for 2007 and 2008, Entergy VY will perform detailed visual

inspections of the torus to confirm that there are no potential leakage paths. The inspections will look specifically at work that was performed during the outage that may have had contact with the torus. Entergy VY will consult with the DPS in developing any new inspection procedures, and any new revisions thereto, for conducting such visual inspections. During normal plant operations, Entergy VY will perform daily Operator rounds in accessible areas of the torus to identify any potential leakage paths.

4. Entergy VY will provide the DPS with the current revision of 1) ENN-DC-334 — Primary Containment Leakage Rate Testing (Appendix J), and 2) PP 7006 — Primary Containment Leakage Rate Testing Program, and any future revisions thereto during the period between the date of this MOU and completion of the Type A Test in 2010.
5. Following the completion of each of the refueling outages currently scheduled for 2007 and 2008, Entergy VY will provide the DPS with a summary of the results of all primary containment leakage rate tests performed during those outages.
6. All documents agreed to be provided by Entergy VY in accordance with this MOU will be provided to the DPS offices in Montpelier.
7. Within 7 days after this MOU's execution, the DPS shall file with the Board in Docket No. 50-271, ASLBP No. 04-832-02-OLA (Operating License Amendment), a Notice of Withdrawal, in substantially the same form as set forth in Attachment A, and take all other actions necessary to withdraw from such proceeding and have its contentions therein dismissed with prejudice. The DPS further agrees that it will, from time to time, duly execute and deliver any additional documents and take or cause to be taken such further actions (including the making of filings) as may be reasonably necessary and appropriate to implement the DPS withdrawal from such proceeding and the dismissal with prejudice of its contentions.
8. Nothing in this MOU is intended to prevent the State from fulfilling its obligations under State law. It is the intent of this MOU that the State is only agreeing to withdraw, and dismiss its contentions with prejudice, from the current Board hearing on the extended power uprate.
9. The parties agree that this MOU shall not be construed by any party or tribunal as having precedential impact on any future proceeding involving the parties, except as necessary to implement this MOU or to enforce an order of the Board resulting from this MOU.
10. This MOU is governed by Vermont law.

11. The parties have made specific compromises to reach this Memorandum of Understanding. In the event that the Board does not approve the Notice of Withdrawal identified in paragraph 7 of this MOU, each party agrees that the agreements set forth herein may terminate if either party so determines in its sole discretion and each party shall have the same rights as it would have had absent this MOU.

Dated at Montpelier, this 2nd day of May, 2006.

VERMONT DEPARTMENT OF
PUBLIC SERVICE

Name: David O'Brien
Title: Commissioner of the
Department of Public Service

ENTERGY NUCLEAR VERMONT
YANKEE, LLC

Name: Jay K. Thayer
Title: Vice President of Operation and
Duly Authorized Agent

ENTERGY NUCLEAR
OPERATIONS, INC.

Name: Jay K. Thayer
Title: Vice President of Operation and
Duly Authorized Agent

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- Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993)
- any doubt as to the existence of a genuine issue of material fact is resolved against the moving party; CLI-06-5, 63 NRC 121 (2006)
 - because the burden is on the proponent of summary disposition, the Board must examine the record in the light most favorable to the nonmoving party and give the nonmoving party the benefit of all favorable inferences that can be drawn from the evidence; CLI-06-5, 63 NRC 122 (2006)
 - if the proponent of summary disposition has satisfied its initial burden, the party opposing the motion may not rest upon mere allegations or denials, but must submit rebutting evidence setting forth specific facts showing that there is a genuine issue of fact to be tried; CLI-06-5, 63 NRC 122 (2006)
 - the Commission applies the same standard for summary disposition that the federal courts apply under Rule 56 of the Federal Rules of Civil Procedure when ruling on motions for summary judgment; CLI-06-5, 63 NRC 121 (2006)
 - the proponent of summary disposition bears the burden of demonstrating that there is no genuine issue as to any material fact; CLI-06-5, 63 NRC 121 (2006)
- Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102-03 (1993)
- a party opposing summary disposition must counter each adequately supported material fact with its own statement of material facts in dispute and supporting materials, or the movant's facts will be deemed admitted; LBP-06-9, 63 NRC 307 (2006)
 - a summary disposition movant bears the initial burden of making the requisite showing that there is no genuine issue as to any material fact, which it attempts to do by means of a required statement of material facts not at issue and any supporting materials (including affidavits, discovery responses, and documents) that accompany its dispositive motion; LBP-06-9, 63 NRC 307 (2006)
 - summary disposition may be entered with respect to any matter (or all of the matters) in a proceeding if the motion, along with any appropriate supporting material, shows that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law; LBP-06-9, 63 NRC 307 (2006)
- Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-94-6, 39 NRC 285, 297 (1994), *aff'd* *Advanced Medical Systems, Inc. v. NRC*, 61 F.3d 903 (6th Cir. 1995)
- appellant bears the responsibility of clearly identifying the errors in the decision below and ensuring that its brief contains sufficient information and cogent argument to alert the other parties and the Commission to the precise nature of and support for the appellant's claims; CLI-06-10, 63 NRC 478 (2006)
- Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-94-6, 39 NRC 285, 306-07 (1994), *aff'd sub nom. Advanced Medical Systems, Inc. v. NRC*, 61 F.3d 903 (Table) (6th Cir. 1995) (per curiam)
- something more than suspicions or bald assertions are necessary as the basis for any purported material factual disputes; LBP-06-9, 63 NRC 308-09 n.8 (2006)
- Alaska Center for the Environment v. U.S. Forest Service*, 189 F.3d 851, 859 (9th Cir. 1999)
- an explanation of the applicability of a categorical exclusion is required where special circumstances necessitating an environmental review have been alleged; LBP-06-4, 63 NRC 108-09 n.36 (2006)

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- Alaska Department of Transportation and Public Facilities*, CLI-04-26, 60 NRC 399, 404-11, *reconsid'n denied*, CLI-04-38, 60 NRC 652 (2004), *petition for review docketed sub nom. Farmer v. NRC*, No. 05-70718 (9th Cir. Feb. 11, 2005)
enforcement orders typically limit adjudication to whether the facts as stated in the order are true, and whether the proposed sanction is supported by those facts; CLI-06-16, 63 NRC 720 (2006)
- Aldens, Inc. v. Miller*, 610 F.2d 538, 541 (8th Cir. 1979)
the "law of the case" doctrine is a flexible concept with exceptions; CLI-06-11, 63 NRC 488 (2006)
- Anderson v. Bessemer City*, 470 U.S. 564, 573-76 (1985)
the Commission generally steps in only to correct clearly erroneous findings, that is, findings not even plausible in light of the record viewed in its entirety; CLI-06-15, 63 NRC 697 (2006)
- Andrew Siemaszko*, CLI-06-12, 63 NRC 495, 500 (2006)
a request to hold an enforcement proceeding in abeyance for an indeterminate length of time is extraordinary and is rarely granted; LBP-06-13, 63 NRC 536 n.32, 566 n.135 (2006)
five factors are weighed to determine whether there is good cause to delay a proceeding regarding an immediately effective license suspension order; LBP-06-13, 63 NRC 535 n.28 (2006)
- Andrew Siemaszko*, CLI-06-12, 63 NRC 495, 502 (2006)
Staff's mere assertion that it wishes to protect DOJ's pending criminal prosecution does not, without more, justify holding NRC's parallel administrative proceeding in abeyance; LBP-06-13, 63 NRC 538 n.44, 562 (2006)
- Andrew Siemaszko*, CLI-06-12, 63 NRC 495, 503 (2006)
the weight to be given the Staff's reason for seeking an abeyance turns on the quality of the factual record; LBP-06-13, 63 NRC 541, 566 (2006)
- Andrew Siemaszko*, CLI-06-12, 63 NRC 495, 504 (2006)
the Commission has a long-established policy of deferring to DOJ when it seeks a delay, and of not lightly second-guessing DOJ's views on whether, and how, premature disclosures might affect its criminal prosecutions; LBP-06-13, 63 NRC 556, 566 (2006)
- Andrew Siemaszko*, CLI-06-12, 63 NRC 495, 504-05 (2006)
where the individual who was the subject of a suspension order that was not immediately effective had already left the industry, there was no establishment of harm to his property interests; LBP-06-13, 63 NRC 543 (2006)
- ARCO Pipeline Co. v. S/S Trade Star*, 81 F.R.D. 416, 417 (E.D. Pa. 1978)
in response to claims of attorney-client and attorney work product privilege, the identity of an expert retained by a party is discoverable; LBP-06-10, 63 NRC 335 n.68 (2006)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149 (1991)
a licensing board may not make factual inferences on a petitioner's behalf; LBP-06-10, 63 NRC 340 (2006)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991)
a Board must not redraft an inadmissible contention to cure deficiencies and thereby render it admissible; CLI-06-16, 63 NRC 721 n.38 (2006)
it is not up to licensing boards to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves, and boards may not simply infer unarticulated bases of contentions; CLI-06-10, 63 NRC 457 (2006)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991)
a board may not make assumptions of fact that favor an intervention petitioner or supply information that is lacking in its petition; LBP-06-7, 63 NRC 232 (2006)
failure of a contention to meet any of the requirements of section 2.309(f)(1) is grounds for its dismissal; LBP-06-10, 63 NRC 336 (2006)
NRC contention rules call for a clear statement of the basis for the contentions and the submission of supporting information and references to specific documents and sources that establish the validity of the contention; CLI-06-9, 63 NRC 437 (2006)

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- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 156 (1991)
if a petitioner does not believe the Safety Analysis Report and the Environmental Report address a relevant issue, the petitioner is to explain why the application is deficient; LBP-06-10, 63 NRC 341 (2006)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-82-117A, 16 NRC 1964, 1991 (1982)
licensing boards should not entertain collateral attacks upon the actions of other federal agencies on a matter over which the Commission has no jurisdiction; LBP-06-15, 63 NRC 630 (2006)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-91-19, 33 NRC 397, 411-12 (1991), *appeal denied on other grounds*, CLI-91-12, 34 NRC 149 (1991)
a contention must allege facts sufficient to establish that it falls directly within the scope of a proceeding; LBP-06-10, 63 NRC 338 (2006)
- Armed Forces Radiobiology Research Institute* (Cobalt-60 Storage Facility), ALAB-682, 16 NRC 150, 153-54 (1982)
close proximity to a facility has always been deemed to be enough, standing alone, to establish the requisite interest to confer standing; LBP-06-7, 63 NRC 196 (2006)
- Armstrong v. Board of School Directors of City of Milwaukee*, 616 F.2d 305 (7th Cir. 1980)
when evaluating whether a settlement in an enforcement proceeding is in the public interest, four factors are considered; LBP-06-18, 63 NRC 837 (2006)
- Ashworth v. Albers Medical, Inc.*, 229 F.R.D. 527 (S.D.W.V. 2005)
sometimes the pendency of a criminal prosecution necessitates delaying a parallel civil or administrative proceeding; LBP-06-13, 63 NRC 537 (2006)
- Association of Public Agency Customers v. Bonneville Power Administration*, 126 F.3d 1158, 1188 (9th Cir. 1997)
the “no-action” alternative is most simply viewed as maintaining the status quo; CLI-06-10, 63 NRC 468 (2006)
- Aushman v. Bank of America Corp.*, 212 F. Supp. 2d 435, 442-43 (D. Md. 2002)
the purpose and scope of the duty of candor that is placed on lawyers is described; LBP-06-10, 63 NRC 371 n.10 (2006)
- Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant), 4 AEC 243, 244 (1969)
intervenor may not use a licensing proceeding to rewrite Commission regulations; LBP-06-1, 63 NRC 59-60 (2006)
- Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-14, 48 NRC 39, 41, *motion to vacate denied*, CLI-98-15, 48 NRC 45 (1998)
the provisions of Parts 51 and 54 relating to the scope of license renewal proceedings are discussed; LBP-06-10, 63 NRC 343 (2006)
- Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 347 (1998)
petitioner’s failure to show that its newly presented contentions satisfy section 2.309(c) provides an independent and sufficient basis for not admitting its belated contentions; LBP-06-11, 63 NRC 396 n.3 (2006)
- Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 350 (1998)
NRC Staff’s mere interest in an issue, its solicitation of public input on an issue, or its proposed revision to a generic guidance document will not, standing alone and lacking an articulated plant-specific safety concern, suffice as a contention’s cornerstone; LBP-06-11, 63 NRC 399 (2006)
- Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.* 462 U.S. 87, 97 (1983)
to take the NEPA-required “hard look” at all significant consequences of a project, the consequences of the entire project must be examined at one time; CLI-06-11, 63 NRC 493 (2006)
- Barker v. Wingo*, 407 U.S. 514 (1972)
a four-factor test is applied to determine whether a delay violates the Sixth Amendment right to a speedy trial; LBP-06-13, 63 NRC 535 n.29 (2006)

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- Barker v. Wingo*, 407 U.S. 514, 521 (1972)
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- Barker v. Wingo*, 407 U.S. 514, 530 (1972)
in deciding whether to delay a proceeding, an adjudicator can do little more than identify some of the factors that courts should assess in determining whether a particular defendant has been deprived of his right; LBP-06-13, 63 NRC 535 n.29 (2006)
- Barker v. Wingo*, 407 U.S. 514, 532 (1972)
timely assertion of the right to a hearing is a relevant factor because failure to assert the right will make it difficult for the party opposing the delay to prove that he was denied a speedy trial; LBP-06-13, 63 NRC 543 (2006)
- Baxter v. Palmigiano*, 425 U.S. 308, 318 (1976)
the Fifth Amendment does not prevent the trier of fact from making an adverse inference where the privilege is claimed by a party to a civil cause; LBP-06-13, 63 NRC 538 n.45 (2006)
- Bellotti v. NRC*, 725 F.2d 1380 (D.C. Cir. 1983)
a challenge to an enforcement order in which the petitioner contends that the order needs strengthening is prohibited; LBP-06-12, 63 NRC 422 (2006)
enforcement orders typically limit adjudication to whether the facts as stated in the order are true, and whether the proposed sanction is supported by those facts; CLI-06-16, 63 NRC 720 (2006)
- Benevolence International Foundation v. Ashcroft*, 200 F. Supp. 2d 935 (N.D. Ill. 2002)
sometimes the pendency of a criminal prosecution necessitates delaying a parallel civil or administrative proceeding; LBP-06-13, 63 NRC 537 (2006)
- Blackwell v. Cole Taylor Bank*, 152 F.3d 666, 673 (7th Cir. 1998)
silence about facts constitutes a waiver of the specific factual contentions made by the opposing party in a brief filed earlier; LBP-06-7, 63 NRC 200 n.7 (2006)
- Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214 (9th Cir. 1998)
to take the NEPA-required "hard look" at all significant consequences of a project, the consequences of the entire project must be examined at one time and cannot be looked at piecemeal; CLI-06-11, 63 NRC 493 (2006)
- Board of License Commissioners v. Pastore*, 469 U.S. 238, 240 ((1985)
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counsel have a continuing duty to update a tribunal of any development that may conceivably affect the outcome of litigation; LBP-06-10, 63 NRC 333 (2006)
- Boston Edison Co.* (Pilgrim Nuclear Generating Station, Unit 2), ALAB-479, 7 NRC 774, 779 (1978)
there is no basis for providing an EIS description to such a level of detail that it can be duplicated by members of the public, so as to permit an individual to run applicable computer codes or make other detailed computations; LBP-06-9, 63 NRC 302, 310 n.10 (2006)
- Brotherhood of Locomotive Firemen and Enginemen v. Northern Pacific Railway Co.*, 274 F.2d 641, 646-47 (8th Cir. 1960)
where possible, a regulation should be construed in a manner that avoids internal inconsistencies; LBP-06-1, 63 NRC 57 (2006)
- Burton v. Mottolese*, 835 A.2d 998, 1032 (Conn. 2003)
the basis for and purpose of the duty of trial judges to deter and correct misconduct of attorneys with respect to their obligations as officers of the court lies in the need to safeguard the administration of justice and to protect the public from the misconduct or unfitness of those who are members of the legal profession; LBP-06-10, 63 NRC 369 (2006)
- Business and Professional People for the Public Interest v. Atomic Energy Commission*, 502 F.2d 424, 428 (D.C. Cir. 1974)
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- Butchers' Union Co. v. Crescent City Co.*, 111 U.S. 746, 762 (1884) (Bradley, J., concurring)
the right to follow any of the common occupations of life is an inalienable right, formulated as such under the phrase "pursuit of happiness" in the Declaration of Independence, and is a large ingredient in the civil liberty of the citizen; LBP-06-13, 63 NRC 547 n.89 (2006)
- C3, Inc. v. United States*, 4 Cl. Ct. 790 (1984)
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- California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982)
because there is no current proposal for a deep disposal site, it is reasonable to defer more detailed analysis until a concrete proposal crystallizes actual site data, allowing for a comprehensive, site-specific evaluation of probable impacts; CLI-06-15, 63 NRC 706 (2006)
- Calvert Cliffs' Coordinating Committee, Inc. v. AEC*, 449 F.2d 1109, 1118 (D.C. Cir. 1971)
in uncontested hearings, the board need not necessarily go over the same ground covered in the detailed environmental impact statement, but it must at least examine the statement carefully to determine whether the review by the Staff has been adequate, and it must independently consider the final balance among conflicting factors that is struck in the Staff's recommendation; LBP-06-17, 63 NRC 825 (2006)
in uncontested hearings, the board shall determine whether the application and the record of the proceeding contain sufficient information, and the review of the application by the Commission's regulatory staff has been adequate, to support affirmative findings on various nonenvironmental factors; LBP-06-17, 63 NRC 825 (2006)
- Campbell v. Eastland*, 307 F.2d 478, 487 (5th Cir. 1962), *cert. denied*, 375 U.S. 95 (1963)
a judge should be sensitive to the difference in the rules of discovery in civil and criminal cases and that separate policies and objectives support these different rules; LBP-06-13, 63 NRC 539 n.48 (2006)
a litigant should not be allowed to make use of the liberal discovery procedures applicable to a civil suit as a dodge to avoid the restrictions on criminal discovery and thereby obtain documents he would not otherwise be entitled to for use in his criminal suit; CLI-06-12, 63 NRC 503 n.27 (2006)
the statement that "administrative policy gives priority to the public interest in law enforcement" has occasionally been cited for the proposition that a stay of the civil proceeding is always appropriate when there is a parallel criminal proceeding; LBP-06-13, 63 NRC 539 n.50 (2006)
- Campbell v. Eastland*, 307 F.2d 478, 487 n.12 (5th Cir. 1962)
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- Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-7, 53 NRC 113, 118 (2001)
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- Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1 and 2), LBP-83-27A, 17 NRC 971, 978-79 (1983)
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- CFC Logistics, Inc.* (Cobalt-60 Irradiator), LBP-03-20, 58 NRC 311, 323-33 (2003)
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- CFC Logistics, Inc.* (Cobalt-60 Irradiator), LBP-03-20, 58 NRC 311, 327 (2003)
the regulations in Part 36 set the standards that must be applied to an application, but they do not embody a determination that the facility meets those standards; LBP-06-12, 63 NRC 406 (2006)
- Cities of Statesville v. AEC*, 441 F.2d 962, 976-77 (D.C. Cir. 1969)
NRC has broad discretion to provide hearings or permit interventions in cases where these avenues of public participation would not be available as a matter of right; CLI-06-16, 63 NRC 715 (2006)
- Citizens Against Burlington v. Busey*, 938 F.2d 190, 195 (D.C. Cir.), *cert. denied*, 502 U.S. 994 (1991)
agencies need only consider those alternatives that can achieve the purposes of the proposed action; CLI-06-10, 63 NRC 469 (2006)
when the purpose of a project is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved; CLI-06-10, 63 NRC 469 (2006)

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- Citizens Against Burlington v. Busey*, 938 F.2d 190, 196 (D.C. Cir.), *cert. denied*, 502 U.S. 994 (1991)
when reviewing a license application filed by a private applicant, NRC should take into account the needs and goals of the parties involved in the application; CLI-06-10, 63 NRC 468 (2006)
- Citizens Against Burlington v. Busey*, 938 F.2d 190, 197 (D.C. Cir. 1991))
when a federal agency acts, not as a proprietor, but to approve a project being sponsored by a local government or private applicant, the federal agency is necessarily more limited; CLI-06-10, 63 NRC 468 (2006)
when reviewing an application filed by a private entity, as opposed to a federally sponsored project, the agency may accord substantial weight to the preferences of the applicant with regard to the consideration of alternatives, including choices regarding site selection and project design; LBP-06-8, 63 NRC 259 (2006)
- City of Detroit v. Grinnell*, 495 F.2d 448 (2d Cir. 1974)
when evaluating whether a settlement in an enforcement proceeding is in the public interest, four factors are considered; LBP-06-18, 63 NRC 837 (2006)
- City of Grapevine v. Department of Transportation*, 17 F.3d 1502, 1506 (D.C. Cir. 1994)
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- City of Olmsted Falls v. Federal Aviation Administration*, 292 F.3d 261, 274 (D.C. Cir. 2002)
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- City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990)
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- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)
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- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), LBP-81-24, 14 NRC 175, 179 (1981)
all six discretionary intervention factors, regardless of the result on the critical first factor, typically are examined; CLI-06-16, 63 NRC 722 n.47 (2006)
- Cohen v. Brown University*, 101 F.3d 155, 167-68 (1st Cir. 1996), *cert. denied*, 520 U.S. 1186 (1997)
legal determinations made on appeal in a case are controlling precedent, becoming the "law of the case," for all later decisions in the same case; CLI-06-11, 63 NRC 488 (2006)
- Cohen v. Brown University*, 101 F.3d 155, 168 (1st Cir. 1996), *cert. denied*, 520 U.S. 1186 (1997)
a prior decision should be followed unless it is clearly erroneous and its enforcement would work a manifest injustice, intervening controlling authority makes reconsideration appropriate, or substantially different evidence was adduced at a subsequent trial; CLI-06-11, 63 NRC 489 (2006)
the "law of the case" doctrine is a flexible concept with exceptions; CLI-06-11, 63 NRC 488 (2006)
- Commonwealth Edison Co.* (Carroll County Site), ALAB-601, 12 NRC 18, 24 (1980)
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- Commonwealth Edison Co.* (Dresden Nuclear Power Station, Unit 1), LBP-82-52, 16 NRC 183, 194 (1982)
a petitioner should not be entitled to discretionary intervention without an issue of its own worthy of exploration in an adjudication; CLI-06-16, 63 NRC 719-20 n.32 (2006)
- Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 426 (1980)
the scope of a proceeding generally is defined by the Commission's notice of opportunity for hearing; LBP-06-12, 63 NRC 420 (2006)
- Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 426-27 (1980)
contentions are not cognizable unless they are material to matters that fall within the scope of the proceeding for which the licensing board has been delegated jurisdiction as set forth in the Commission's notice of opportunity for hearing; LBP-06-10, 63 NRC 338 (2006)

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- Commonwealth Edison Co.* (Zion Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 194 (1999)
if a board misapprehends the intended meaning of a contention, the petitioner bears the responsibility for any misunderstanding; LBP-06-12, 63 NRC 408 (2006)
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- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 189 (1999), *petition for review denied, Dienethal v. NRC*, 203 F.3d 52 (D.C. Cir. 2000)
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- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 194 (1999), *petition for review denied, Dienethal v. NRC*, 203 F.3d 52 (D.C. Cir. 2000)
absent extreme circumstances, the Commission will not consider on appeal either new arguments or new evidence supporting the contentions, which the Board never had the opportunity to consider; CLI-06-10, 63 NRC 458 (2006)
it is not up to licensing boards to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves, and boards may not simply infer unarticulated bases of contentions; CLI-06-10, 63 NRC 457 (2006)
- Concerned Citizens Coalition v. Federal Highway Administration*, 330 F. Supp. 2d 787, 796 (W.D. La. 2004)
applicant and NRC Staff must conduct a rigorous and objective evaluation of all reasonable, nonspeculative alternatives in relation to the objectives of the proposed project; CLI-06-9, 63 NRC 448 (2006)
the NHPA requirement for consideration of alternatives comes into play only if the project will have an adverse effect on historic properties, and only after that determination is made; CLI-06-9, 63 NRC 449 (2006)
- Connecticut Bankers Ass'n v. Board of Governors*, 627 F.2d 245, 251 (D.C. Cir. 1980)
a petitioner does not become entitled to an evidentiary hearing merely on request, or on a bald or conclusory allegation that a dispute exists, but must make a minimal showing that material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate; LBP-06-10, 63 NRC 342 (2006)
although support for a contention may be weak and the contention may be technically imperfect, it may still raise a valid and significant issue with reasonably specific factual and legal allegations and be sufficient to support further inquiry; LBP-06-10, 63 NRC 381 (2006)
- Connecticut Yankee Atomic Power Co.* (Haddam Neck Plant), LBP-01-25, 54 NRC 177, 184 (2001)
administrative history and other available guidance may be consulted for background information and the resolution of ambiguities in a regulation's language; CLI-06-11, 63 NRC 491 (2006)
although administrative history and other available guidance may be consulted for background information and the resolution of ambiguities in a regulation's language, its interpretation may not conflict with the plain meaning of the wording used in that regulation; CLI-06-5, 63 NRC 154 (2006)
- Consolidated Edison Co. of New York* (Indian Point, Unit 2), CLI-74-23, 7 AEC 947, 951-52 (1974)
post-hearing resolution of licensing issues must not be used to obviate the basic findings prerequisite to a license, including a reasonable assurance that the facility can be operated without endangering the health and safety of the public; CLI-06-1, 63 NRC 4 (2006)
- Consolidated Edison Co. of New York* (Indian Point, Unit 2), CLI-82-15, 16 NRC 27, 31 (1982)
only eight petitions for discretionary intervention have ever been granted during the 30 years NRC has applied the current six-factor test; CLI-06-16, 63 NRC 717 (2006)
- Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 334-35 (1973)
licensing boards are authorized to accept assertions of the applicant and Staff that have not been controverted by a party; LBP-06-7, 63 NRC 200 n.7 (2006)
- Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-452, 6 NRC 892, 902-03 (1977)
the coordination services market is a market for the exchange of surplus electric power between utilities on a nonfirm basis and the joint and coordinated operation by utilities of their systems of

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- Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-452, 6 NRC 892, 973-74 & n.352 (1977)
- “distribution” refers generally to the transport of electricity by local distribution companies to the end users of the electricity (e.g., homes, shops, office buildings, factories); CLI-06-2, 63 NRC 14 n.16 (2006)
- “transmission services” is a concept central to the determination of standing in a license transfer proceeding; CLI-06-2, 63 NRC 14 n.16 (2006)
- “transmission services” refers to the transport of electricity on the wholesale market to local distribution companies; CLI-06-2, 63 NRC 14 n.16 (2006)
- Consumers Power Co.* (Palisades Nuclear Power Facility), ALAB-670, 15 NRC 493, 499-506, *vacated as moot*, CLI-82-18, 16 NRC 50 (1982)
- only eight petitions for discretionary intervention have *ever* been granted during the 30 years NRC has applied the current six-factor test; CLI-06-16, 63 NRC 717 (2006)
- Consumers Power Co.* (Palisades Nuclear Power Facility), CLI-82-18, 16 NRC 50, 52 (1982)
- the Commission has taken the unusual step of declaring that the grant of discretionary intervention carries no precedential weight; CLI-06-16, 63 NRC 717 (2006)
- Coming Glass Works v. Brennan*, 417 U.S. 188, 202 (1974)
- technical terms of art should be interpreted by reference to the trade or industry to which they apply; CLI-06-14, 63 NRC 519 (2006)
- Cunningham v. Sears, Roebuck & Co.*, 854 F.2d 914, 916 (6th Cir. 1988)
- although counsel have duties to their clients, there is a degree of candor necessary for effective disposition of cases that counsel owes as an officer of the court; LBP-06-10, 63 NRC 370 (2006)
- Cuomo v. NRC*, 772 F.2d 972, 976 (D.C. Cir. 1985)
- a party seeking a stay must show it faces imminent, irreparable harm that is both certain and great; CLI-06-8, 63 NRC 237 (2006)
- Daniels v. Alander*, 844 A.2d 182, 187-88 (Conn. 2004)
- the duty of trial judges to deter and correct misconduct of attorneys with respect to their obligations as officers of the court is related to the need to support the authority of the tribunal and enable the proceeding to go forward with dignity; LBP-06-10, 63 NRC 369 (2006)
- Daniels v. Alander*, 844 A.2d 182, 188 (Conn. 2004)
- the ethical rule that prohibits the making of false statements, as well as failing to correct such statements, is not limited to affirmative misstatements, but also applies to failures to correct misstatements made in a lawyer’s presence by another lawyer; LBP-06-10, 63 NRC 371 (2006)
- Dellums v. NRC*, 863 F.2d 968, 971 (D.C. Cir. 1988)
- an intervention petitioner must demonstrate a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; LBP-06-4, 63 NRC 103 (2006)
- Delong Equipment Co. v. Washington Mills Electro Minerals Corp.*, 990 F.2d 1186, 1196 (11th Cir.), *cert. denied*, 510 U.S. 1012 (1993)
- legal determinations made on appeal in a case are controlling precedent, becoming the “law of the case,” for all later decisions in the same case; CLI-06-11, 63 NRC 488 (2006)
- Demko v. United States*, 216 F.3d 1049, 1053 (Fed. Cir. 2000)
- pursuant to the rule of the last antecedent, qualifying words, phrases, and clauses must be applied to the words or phrases immediately preceding them and are not to be construed as extending to and including others more remote; LBP-06-1, 63 NRC 56 n.11 (2006)
- Department of Transportation v. Public Citizen*, 541 U.S. 752 (2004)
- nothing in the Atomic Energy Act gives the agency authority to base licensing decisions on a project’s potential to create or eliminate jobs; CLI-06-10, 63 NRC 467 (2006)
- Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 2), LBP-79-1, 9 NRC 73, 87-88 (1979)
- only eight petitions for discretionary intervention have ever been granted during the 30 years NRC has applied the current six-factor test; CLI-06-16, 63 NRC 717 (2006)

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- Digital Equipment Corp. v. Currie Enterprises*, 142 F.R.D. 8, 14 (D. Mass. 1991)
conclusory allegations of potential abuse or simply the opportunity for the plaintiff to exploit civil discovery are generally unavailing to support a motion for stay; LBP-06-13, 63 NRC 541 n.56 (2006)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *petition for reconsideration denied*, CLI-02-1, 55 NRC 1 (2002)
a petitioner must read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant's position and the petitioner's opposing view, and explain why it disagrees with the applicant; LBP-06-10, 63 NRC 340 (2006)
admission standards for contentions were raised in an effort to obviate serious hearing delays caused in the past by poorly defined or supported contentions; CLI-06-10, 63 NRC 455 (2006)
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the contention rule was toughened in 1989 because in prior years licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation; LBP-06-10, 63 NRC 337 (2006)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 359-60 (2001)
an admissible contention must explain, with specificity, particular safety or legal reasons requiring rejection of the contested application; LBP-06-10, 63 NRC 338 (2006)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 365-66 (2001)
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- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-02-27, 56 NRC 367 (2002)
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- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 213 (2003)
NRC's contention rule requires some reasonably specific factual or legal basis for a petitioner's allegations; CLI-06-10, 63 NRC 455 (2006)
NRC's strict contention admission rules are intended to adjudicate genuine, substantive safety and environmental issues placed in contention by qualified intervenors; CLI-06-10, 63 NRC 455 (2006)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 215-16, *petition for reconsideration denied*, CLI-03-18, 58 NRC 433 (2003)
a threshold finding of standing does not render contentions admissible; CLI-06-9, 63 NRC 446 n.74 (2006)
although a petitioner may have a sufficient interest in a proceeding for standing, he or she may have no genuine material dispute to adjudicate, or no specific factual or legal support to bring an issue to hearing; CLI-06-9, 63 NRC 446 n.74 (2006)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 216 (2003)
the threat of injury from radiation exposure is sufficient to satisfy the injury in fact requirement of traditional standing; LBP-06-4, 63 NRC 104 (2006)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637 (2004)
the Commission affirms Board decisions on the admissibility of contentions if the appellant points to no error of law or abuse of discretion; CLI-06-9, 63 NRC 439 n.32 (2006)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637-38 (2004)
a significant safety or environmental issue raised in a motion to reopen a license renewal proceeding must focus on the potential impacts of an additional 20 years of nuclear power plant operation, not on everyday operational issues; CLI-06-4, 63 NRC 37 (2006)

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terrorist acts are outside the required purview of NEPA, and security-related issues related to such acts are simply not among the aging-related questions at stake in a license renewal proceeding;
LBP-06-7, 63 NRC 201 n.8 (2006)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560-61 (2005)
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- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 564 (2005)
whether good cause exists for failure to file a contention on time is given the most weight;
LBP-06-14, 63 NRC 575 (2006)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), LBP-04-15, 60 NRC 81, 90, *aff'd*, CLI-04-36, 60 NRC 631 (2004)
the provisions of Parts 51 and 54 relating to the scope of license renewal proceedings are discussed;
LBP-06-10, 63 NRC 343 (2006)
- Dr. James E. Bauer* (Order Prohibiting Involvement in NRC-Licensed Activities), LBP-94-40, 40 NRC 323, 330 (1994), *petition for review denied on other grounds*, CLI-95-3, 41 NRC 245 (1995)
because enforcement cases are fact-specific and typically rely far more on witness testimony than do licensing adjudications, a long delay could result in the fading of witnesses' memories; CLI-06-12, 63 NRC 502 (2006)
- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-13, 53 NRC 478, 483 (2001)
corrective redrafting of a discretionary intervention petitioner's contention is tantamount to raising a new issue *sua sponte* without the required prior permission from the Commission; CLI-06-16, 63 NRC 721 (2006)
- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335 (2002)
the effects of terrorist attacks need not be considered under NEPA; LBP-06-7, 63 NRC 200 (2006)
- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 422 (2001)
a board may not make assumptions of fact that favor an intervention petitioner or supply information that is lacking in its petition; LBP-06-7, 63 NRC 232 (2006)
- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-03-21, 58 NRC 338, 346-47 (2003)
a 30-day time frame for filing new contentions has been established; LBP-06-14, 63 NRC 574 (2006)
- Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-19, 60 NRC 5 (2004)
petitioners or intervenors may request and, where appropriate, obtain under protective order or other measures information withheld from the general public for proprietary or security reasons; CLI-06-10, 63 NRC 460 (2006)
- Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), LBP-04-4, 59 NRC 129, 149-50 (2004)
there is no basis for providing an EIS description to such a level of detail that it can be duplicated by members of the public, so as to permit an individual to run applicable computer codes or make other detailed computations; LBP-06-9, 63 NRC 302, 310 n.10 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428-29 (2003)
contention admissibility and timeliness requirements demand a level of discipline and preparedness on the part of petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the outset; LBP-06-11, 63 NRC 396 n.3 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 212 (2001)
the scope of an admissible contention in the context of a license renewal proceeding encompasses a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; LBP-06-7, 63 NRC 198, 222 (2006)

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- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 5 (2002)
if the cost of implementing a particular severe accident mitigation alternative is greater than its associated benefit, the SAMA would not be considered cost-beneficial; LBP-06-7, 63 NRC 199 n.6 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 363-64 (2002)
the provisions of Parts 51 and 54 relating to the scope of license renewal proceedings are discussed; LBP-06-10, 63 NRC 343 (2006)
the scope of the NRC's public health and safety review in the context of a license renewal proceeding ordinarily is limited to a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; LBP-06-7, 63 NRC 198 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 364 (2002)
an "aircraft attack" scenario is outside the scope of, and not material to, a license renewal proceeding; LBP-06-7, 63 NRC 201 (2006)
because the Commission's ongoing regulatory oversight programs routinely address many safety issues and will continue to address them in years 41 through 60 of a plant's life, consideration of those issues in a license renewal proceeding would be unnecessary and wasteful; LBP-06-7, 63 NRC 225 (2006)
terrorism contentions are related to security and are therefore unrelated to the detrimental effects of aging and, consequently, outside the scope of a license renewal proceeding; LBP-06-7, 63 NRC 226 n.36 (2006)
the scope of a license renewal hearing excludes consideration of matters that are the subject of the agency's ongoing regulatory oversight programs which routinely address many safety issues and will continue to address them in years 41 through 60 of a plant's life; LBP-06-7, 63 NRC 229 (2006)
the scope of a license renewal proceeding is far more limited than the Atomic Energy Act issues that a licensing board addresses when reviewing an initial operating license application; LBP-06-7, 63 NRC 225 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 365 (2002)
NEPA imposes no legal duty on the NRC to consider intentional malevolent acts, such as the September 11, 2001 terrorist attacks, on a case-by-case basis in conjunction with commercial power reactor license renewal applications; LBP-06-7, 63 NRC 201 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 365 n.24 (2002)
in its Generic Environmental Impact Statement for License Renewal of Nuclear Plants, the NRC Staff performed a discretionary analysis of terrorist acts in connection with license renewal, and it concluded that the core damage and radiological release from such acts would be no worse than the damage and release to be expected from internally initiated events; LBP-06-7, 63 NRC 201 n.8 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 383 (2002)
when a contention alleges the omission of particular information or an issue from an application, and the information is later supplied by the applicant or considered by the NRC Staff in an environmental impact statement, the contention is moot; CLI-06-9, 63 NRC 444 (2006); LBP-06-16, 63 NRC 742 (2006)
when a contention based on an applicant's environmental report is superseded by the subsequent issuance of licensing-related documents, whether an environmental impact statement or an applicant's response to a request for additional information, the contention must be disposed of or modified; CLI-06-9, 63 NRC 444 (2006)

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- when a contention of omission has been rendered moot, and the intervenor wishes to raise specific challenges regarding the new information, it may timely file a new contention that addresses the admissibility factors of 10 C.F.R. 2.309(f)(1); LBP-06-16, 63 NRC 744 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 383 n.45 (2002)
- it may be necessary to examine the language of the bases to determine a contention's scope; LBP-06-16, 63 NRC 742 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 424 (2003)
- contentions that amount to generalized suspicions, which petitioner hopes to substantiate later, are barred; LBP-06-10, 63 NRC 338 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428 (2003)
- mere notice pleading does not suffice for admission of contentions; CLI-06-9, 63 NRC 437 (2006)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428-29 (2003)
- contention admissibility requirements are rigorous and demand a level of discipline and preparedness on the part of petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the outset; LBP-06-12, 63 NRC 405 (2006)
- there simply would be no end to NRC licensing proceedings if petitioners could disregard the timeliness requirements and add new bases or new issues that simply did not occur to them at the outset; LBP-06-12, 63 NRC 405 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2 and 3), CLI-98-17, 48 NRC 123, 125 (1998)
- the provisions of Parts 51 and 54 relating to the scope of license renewal proceedings are discussed; LBP-06-10, 63 NRC 343 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999)
- admission standards for contentions were raised in an effort to obviate serious hearing delays caused in the past by poorly defined or supported contentions; CLI-06-10, 63 NRC 455 (2006); LBP-06-10, 63 NRC 380 (2006)
- NRC's strict contention admission rules are intended to adjudicate genuine, substantive safety and environmental issues placed in contention by qualified intervenors; CLI-06-10, 63 NRC 455 (2006)
- NRC's strict contention pleading rule fosters fair and meaningful adjudicatory hearings; CLI-06-9, 63 NRC 440 (2006)
- section 2.309(f)(1)(v) is not designed to erect an onerous evidentiary hurdle, but rather helps to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions; LBP-06-7, 63 NRC 221 n.33 (2006)
- the contention rule was toughened in 1989 because in prior years licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation; LBP-06-10, 63 NRC 336 (2006)
- the sole question before a board in ruling on an intervention petition is whether petitioner has submitted the requisite minimal factual and legal foundation to support its contention; LBP-06-7, 63 NRC 225 (2006)
- the strict contention rule serves to focus the hearing process on real disputes susceptible of resolution in an adjudication, to put other parties on notice of petitioners' specific grievances, to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions; LBP-06-10, 63 NRC 337 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 335 (1999)
- contention admissibility factors should not be turned into a fortress to deny intervention; LBP-06-7, 63 NRC 225 (2006)
- although support for a contention may be weak and the contention may be technically imperfect, it may still raise a valid and significant issue with reasonably specific factual and legal allegations and be sufficient to support further inquiry; LBP-06-10, 63 NRC 381 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 336-37 (1999)
- mere issuance of a Staff request for additional information does not establish grounds for a litigable contention; CLI-06-6, 63 NRC 164 (2006)

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- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 337 (1999)
a petitioner may not ground a contention on the Staff's request for additional information, when the request shows only an ongoing Staff dialogue with the applicant, not any ultimate Staff determinations; LBP-06-11, 63 NRC 399 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 337-39 (1999)
contentions that amount to generalized suspicions, which petitioner hopes to substantiate later, are barred; LBP-06-10, 63 NRC 338 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 338 (1999)
NRC contention rules require petitioners to work within a limited time frame to review the license application and any available related licensing documents, and this can pose a significant burden, especially for *pro se* petitioners who are likely to have less available time and resources; CLI-06-10, 63 NRC 456 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 342 (1999)
it is legitimate for the Commission to screen out contentions of doubtful worth and to avoid starting down the path toward a hearing at the behest of petitioners who themselves have no particular expertise or expert assistance and no particularized grievance, but are hoping something will turn up later as a result of NRC Staff work; LBP-06-10, 63 NRC 339 (2006)
whether petitioners have expert assistance can be related to how qualified petitioners may be to effectively litigate issues put forth in contentions, and whether contentions should therefore be admitted; LBP-06-10, 63 NRC 380 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 343 (1999)
Category 1 waste issues may not be introduced into a license renewal proceeding; CLI-06-17, 63 NRC 734 n.29 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 343-44 (1999)
because onsite spent fuel is a Category 1 issue, a contention challenging licensee's SAMA analysis for failing to consider spent fuel pool vulnerability is beyond the scope of a license renewal proceeding and thus not admissible; LBP-06-7, 63 NRC 202 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 344 n.4 (1999)
issues involving an independent spent fuel storage installation are outside the scope of a license renewal proceeding; CLI-06-17, 63 NRC 733 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)
if a petitioner wishes to challenge particular aspects of a proposed rule, its remedy lies in the rulemaking process, not in adjudication; LBP-06-7, 63 NRC 204 n.10 (2006)
licensing boards should not accept in individual license proceedings contentions that are (or are about to become) the subject of general rulemaking by the Commission; LBP-06-7, 63 NRC 203 (2006)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), LBP-98-33, 48 NRC 381, 385 n.1 (1998), *aff'd on other grounds*, CLI-99-11, 49 NRC 328 (1999)
the distance from the significant source of radioactivity that is presumed to affect the petitioners in license renewal cases logically must be the same 50-mile distance that forms the current basis for the proximity presumption for reactor construction permit and initial operating license proceedings; LBP-06-7, 63 NRC 197 (2006)
- Duke Power Co. v. Carolina Environmental Study Group, Inc.*, 438 U.S. 59, 74 (1978)
the threat of injury from radiation exposure is sufficient to satisfy the injury in fact requirement of traditional standing; LBP-06-4, 63 NRC 104 (2006)
- Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1050 (1983)
where a contention based on an applicant's environmental report is superseded by the subsequent issuance of licensing-related documents, whether an environmental impact statement or an applicant's response to a request for additional information, the contention must be disposed of or modified; CLI-06-9, 63 NRC 444 (2006)
- Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-05-24, 62 NRC 429, 433 (2005)
to give petitioner the opportunity to file a new contention raising a specific substantive challenge to applicant's new periodic UT program for the sand bed region, the board forbears from issuing an order of dismissal for 20 days from the date of the Memorandum and Order; LBP-06-16, 63 NRC 744 (2006)

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- when a contention of omission has been rendered moot, and the intervenor wishes to raise specific challenges regarding the new information, the new contention shall address the remaining factors in 10 C.F.R. 2.309(f)(2), as well as the admissibility factors in section 2.309(f)(1); LBP-06-16, 63 NRC 744 (2006)
- Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-05-32, 62 NRC 813, 821 n.21 (2005)
- if a new contention is timely under 10 C.F.R. 2.309(f)(2)(iii), it is neither logical nor sensible to require a petitioner to satisfy the requirements of 10 C.F.R. 2.309(c) for nontimely filings; LBP-06-11, 63 NRC 396 n.3 (2006)
- Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 572-74 & n.14 (2006)
- if petitioner files a new contention within the 20-day time limit set by the board, and if it satisfies the remaining factors in section 2.309(f)(2), petitioner need not address the requirements under section 2.309(c), which apply to nontimely filings; LBP-06-16, 63 NRC 745 n.12 (2006)
- Environmental Protection Agency v. Mink*, 410 U.S. 73, 87-88 (1973)
- deliberative process privilege applies only if the information is both predecisional and deliberative; LBP-06-3, 63 NRC 91 (2006)
- deliberative process privilege does not extend to factual material severable from the deliberative context; LBP-06-3, 63 NRC 91 (2006)
- Staff communications that summarize the applicable procedures or report on the status of a matter are factual in nature and are not protected by deliberative process privilege; LBP-06-3, 63 NRC 93 (2006)
- Exelon Generation Co., LLC* (Early Site Permit for the Clinton ESP Site), CLI-04-31, 60 NRC 461, 468 (2004)
- an applicant has the right to file an interlocutory appeal of board orders admitting contentions, but only if the appeal challenges the admissibility of all admitted contentions; CLI-06-13, 63 NRC 509 n.3 (2006)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 805-08 (2005)
- there is no requirement that an applicant for a uranium enrichment facility must also specifically consider potential electricity conservation measures; CLI-06-10, 63 NRC 462 n.59 (2006)
- when reviewing a license application filed by a private applicant, NRC may appropriately accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project; CLI-06-10, 63 NRC 468 (2006)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP site), CLI-05-29, 62 NRC 801, 808 (2005)
- contention pleading requirements are deliberately strict, and any contention that does not satisfy them will not be admitted; CLI-06-9, 63 NRC 437 (2006); CLI-06-10, 63 NRC 455 (2006)
- NRC contention rules call for a clear statement of the basis for the contentions and the submission of supporting information and references to specific documents and sources that establish the validity of the contention; CLI-06-9, 63 NRC 437 (2006)
- Exelon Generation Co. & PSEG Nuclear, LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 580-83 (2005)
- although license transfers, like irradiators, are categorically excluded from NEPA review except when special circumstances are present, no mention is made in this decision of a categorical exclusion, nor did it suggest that such a determination would be dispositive of the issue for proximity standing; LBP-06-4, 63 NRC 106 n.27 (2006)
- Exxon Nuclear Co.* (Nuclear Fuel Recovery and Recycling Center), ALAB-447, 6 NRC 873, 878 (1977)
- it is an elementary canon of construction that an agency cannot interpret federal statutes to negate its own stated purposes; LBP-06-1, 63 NRC 69 (2006)
- Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003)
- a contention will be ruled inadmissible where the petitioner has offered only bare assertions and speculation; LBP-06-7, 63 NRC 208 (2006)
- Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 204 (2003)
- a contention must make clear why cited references provide a basis for a contention; CLI-06-10, 63 NRC 457 (2006)

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- Federal Deposit Insurance Corp. v. Mallen*, 486 U.S. 230 (1988)
a five-factor test is applied to determine whether a delay in a post-suspension hearing violates Fifth Amendment due process; LBP-06-13, 63 NRC 535 n.29 (2006)
- Federal Deposit Insurance Corp. v. Mallen*, 486 U.S. 230, 240 (1988)
an individual's employment relationship is a property right protected by the Fifth Amendment; LBP-06-13, 63 NRC 564 (2006)
- Federal Deposit Insurance Corp. v. Mallen*, 486 U.S. 230, 243 (1988)
depriving someone of his or her livelihood has been recognized as harm to private interests; LBP-06-13, 63 NRC 542 n.67, 564 (2006)
- Federal Deposit Insurance Corp. v. Mallen*, 486 U.S. 230, 244 (1988)
a grand jury's return of an indictment based on the same facts underlying an immediately effective order demonstrates that the order is not arbitrary; LBP-06-13, 63 NRC 558 n.125 (2006)
- Federal Savings & Loan Insurance Corp. v. Molinaro*, 889 F.2d 899, 903 (9th Cir. 1989)
convenience in managing caseload and efficiency in using resources, the interests of nonparties, and the public interest may be considered in determining whether to delay a proceeding; LBP-06-13, 63 NRC 535 n.30 (2006)
- Finlay Testing Laboratories, Inc.*, LBP-88-1A, 27 NRC 19, 25 (1988)
where a licensee had put a dollar value on its total and monthly lost revenue, the licensing board had no difficulty concluding that a requested delay would cause further financial and personal devastations; LBP-06-13, 63 NRC 543 (2006)
- Finlay Testing Laboratories, Inc.*, LBP-88-1A, 27 NRC 19, 25-26 (1988)
the party opposing a stay succeeded in showing prejudice due to relocation of witnesses and difficulty retrieving documents; LBP-06-13, 63 NRC 542 n.65 (2006)
- FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), CLI-04-23, 60 NRC 154, 158 (2004)
appellant bears the responsibility of clearly identifying the errors in the decision below and ensuring that its brief contains sufficient information and cogent argument to alert the other parties and the Commission to the precise nature of and support for the appellant's claims; CLI-06-10, 63 NRC 478 (2006)
intervenor has the obligation on appeal to clearly identify asserted errors in the Board's decision, which is not met by a generalized claim followed by multipage citations; CLI-06-10, 63 NRC 473 (2006)
- Florez v. Callahan*, 156 F.3d 438, 443 (2d Cir. 1998)
a basic tenet of statutory construction, equally applicable to regulatory construction, is that a statute should be construed so that effect is given to all its provisions; CLI-06-11, 63 NRC 491 (2006)
- Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329-30 (1989)
a petitioner may have standing based upon its geographical proximity to a particular facility; LBP-06-4, 63 NRC 105 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), ALAB-952, 33 NRC 521, 532, *aff'd*, CLI-91-13, 34 NRC 185 (1991)
under the abuse-of-discretion review standard, it is not enough for the appellant to establish simply that the licensing board might justifiably have reached the same conclusion as the appellant regarding the petition for discretionary intervention; CLI-06-16, 63 NRC 715 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000)
the provisions of Parts 51 and 54 relating to the scope of license renewal proceedings are discussed; LBP-06-10, 63 NRC 343 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 6-13 (2001)
the scope of a license renewal proceeding is governed by 10 C.F.R. Part 54; LBP-06-7, 63 NRC 198 (2006)

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- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 7 (2001)
- a significant safety or environmental issue raised in a motion to reopen a license renewal proceeding must focus on the potential impacts of an additional 20 years of nuclear power plant operation, not on everyday operational issues; CLI-06-4, 63 NRC 37 (2006)
 - corrosion can be an adverse aging effect; LBP-06-7, 63 NRC 224 n.35, 229 n.3 (2006)
 - if a petition has raised an issue within the scope of a license renewal proceeding, the contention would still be inadmissible unless it either raised an issue that was not the subject of an ongoing regulatory oversight program or presented a colorable and supported argument that the ongoing regulatory oversight program was insufficient to manage the problem over the period of extended operation; LBP-06-7, 63 NRC 233 (2006)
 - in developing 10 C.F.R. Part 54 beginning in the 1980s, the Commission sought to develop a process that would be both efficient, avoiding duplicative assessments where possible, and effective, allowing the NRC Staff to focus its resources on the most significant safety concerns at issue during the renewal term; LBP-06-10, 63 NRC 343 (2006)
 - issues and concerns involved in an extended 20 years of operation are not identical to the issues reviewed when a reactor facility is first built and licensed; LBP-06-10, 63 NRC 343 (2006)
 - license renewal safety review focuses upon those potential detrimental effects of aging that are not routinely addressed by ongoing regulatory oversight programs; LBP-06-10, 63 NRC 344 (2006)
 - requiring a full reassessment of safety issues that were thoroughly reviewed when the facility was first licensed and continue to be routinely monitored and assessed by ongoing agency oversight and agency-mandated licensee programs would be both unnecessary and wasteful; LBP-06-10, 63 NRC 343 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 7-8 (2001)
- a license renewal inquiry includes age-related degradation of components that, left unmitigated, can unacceptably reduce safety margins, and lead to the loss of required plant functions with a potential for offsite exposures; LBP-06-7, 63 NRC 225 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 8 (2001)
- applicants must demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation at a detailed component and structure level, rather than at a more generalized system level; LBP-06-10, 63 NRC 343 (2006)
 - issues relating to a plant's current licensing basis are ordinarily beyond the scope of a license renewal review, because those issues already are monitored, reviewed, and commonly resolved as needed by ongoing regulatory oversight; LBP-06-7, 63 NRC 198 (2006)
 - the focus of a license renewal proceeding is on the detrimental effects of aging on reactor and auxiliary systems resulting from operation beyond the initial license term; CLI-06-17, 63 NRC 734 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 9 (2001)
- emergency planning is a safety issue that is outside the scope of license renewal, because the Commission has various regulations establishing standards for emergency plans that are independent of license renewal and will continue to apply during the renewal term; LBP-06-7, 63 NRC 226 n.36 (2006)
 - it is unnecessary and inappropriate to throw open the full gamut of provisions in a plant's current licensing basis to re-analysis during the license renewal review; LBP-06-10, 63 NRC 344 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 9-10 (2001)
- emergency planning issues are not pertinent in license renewal proceedings; LBP-06-10, 63 NRC 367 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 10 (2001)
- any change to a plant's licensing basis that requires a license amendment, i.e., a change in the technical specifications, will offer an opportunity for hearing; LBP-06-10, 63 NRC 389 (2006)

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- license renewal reviews focus on plant systems, structures, and components for which current regulatory activities and requirements may not be sufficient to manage the effects of aging in the period of extended operation; LBP-06-7, 63 NRC 198-99, 224 (2006); LBP-06-10, 63 NRC 344 (2006)
- NRC's program of oversight is sufficiently broad and rigorous to establish that the added discipline of a formal license renewal review against the full range of current safety requirements would not add significantly to safety, and such a review is not needed to ensure that continued operation during the period of extended operation is not inimical to the public health and safety; LBP-06-10, 63 NRC 384 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 10 n.2 (2001)
- an issue can be related to plant aging and still not warrant review at the time of a license renewal application, if an aging-related issue is adequately dealt with by regulatory processes on an ongoing basis; LBP-06-10, 63 NRC 344 (2006)
- if a structure or component is already required to be replaced at mandated, specified time periods, it would fall outside the scope of license renewal review; LBP-06-10, 63 NRC 344 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 11 (2001)
- applicants must provide plant-specific analyses of the environmental impacts characterized by the Commission as involving severity levels that might differ significantly from one plant to another, or impacts for which additional plant-specific mitigation measures should be considered; LBP-06-10, 63 NRC 346 (2006)
- applicants must provide plant-specific review of all Category 2 environmental issues; LBP-06-10, 63 NRC 345 (2006)
- issuance of the 1996 generic environmental impact statement was part of an amendment of the requirements of Part 51 undertaken by the Commission to establish environmental review requirements for license renewals that were both efficient and more effectively focused; LBP-06-10, 63 NRC 345 (2006)
- issues on which the Commission can draw generic conclusions applicable to all existing nuclear power plants, or to a specific subgroup of plants, are identified as "Category 1" issues; LBP-06-10, 63 NRC 345 (2006)
- license renewal applicants may in their site-specific environmental reports refer to and adopt the generic environmental impact findings found in Table B-1, Appendix B for all Category 1 issues; LBP-06-10, 63 NRC 345 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 11-13 (2001)
- contentions implicating Category 2 issues ordinarily are deemed to be within the scope of license renewal proceedings; LBP-06-7, 63 NRC 199 (2006)
- the provisions of Parts 51 and 54 relating to the scope of license renewal proceedings are discussed; LBP-06-10, 63 NRC 343 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 12 (2001)
- the impact of extended operation on endangered or threatened species varies from one location to another, and is thus included within Category 2; LBP-06-10, 63 NRC 346 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 15 (2001)
- the Commission has determined that a number of environmental issues that might otherwise be relevant to license renewal shall be resolved generically for all plants, and such issues, classified as "Category 1" issues, are normally beyond the scope of a license renewal hearing; LBP-06-7, 63 NRC 199 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 15, 20-24 (2001)
- because onsite spent fuel is a Category 1 issue, a contention challenging licensee's SAMA analysis for failing to consider the spent fuel pool is beyond the scope of a license renewal proceeding and thus not admissible; LBP-06-7, 63 NRC 202 (2006)

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- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 23 (2001)
a safety-related contention regarding the impact of hurricanes or an aircraft crash on a spent fuel storage pool is outside the scope of a license renewal proceeding because it does not relate to managing the aging of systems, structures, and components; LBP-06-7, 63 NRC 226 n.36 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 26 (2001)
to gain admission as a party, a petitioner must proffer at least one valid contention for litigation; CLI-06-9, 63 NRC 446 n.74 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 146 (2001), *aff'd on other grounds*, CLI-01-17, 54 NRC 3 (2001)
a petitioner has standing to intervene without the need to specifically plead injury, causation, and redressability if the petitioner lives within, or otherwise has frequent contacts with, the zone of possible harm from the nuclear reactor or other source of radioactivity; LBP-06-4, 63 NRC 105 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 146-50, *aff'd on other grounds*, CLI-01-17, 54 NRC 3 (2001)
individual petitioners may demonstrate standing to participate in a proceeding based on their proximity within 50 miles of a nuclear plant; LBP-06-10, 63 NRC 328 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 148-49, *aff'd on other grounds*, CLI-01-17, 54 NRC 3 (2001)
organizational petitioners must be authorized by individual affected members who have authorized the organization to represent them; LBP-06-10, 63 NRC 328 (2006)
the distance from the significant source of radioactivity that is presumed to affect the petitioners logically must be the same 50-mile distance that forms the current basis for the proximity presumption for reactor construction permit and initial operating license proceedings; LBP-06-7, 63 NRC 197 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 148-50, *aff'd on other grounds*, CLI-01-17, 54 NRC 3, 26 n.20 (2001)
the proximity presumption rule for determining standing has been applied by licensing boards in license renewal cases; LBP-06-7, 63 NRC 196 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 153, *aff'd on other grounds*, CLI-01-17, 54 NRC 3 (2001)
"Category 1" issues under 10 C.F.R. Part 51, Appendix B, are not subject to further evaluation in any license renewal proceeding; LBP-06-10, 63 NRC 356-57 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-16, 31 NRC 509, 521 & n.12 (1990)
an allegation that some aspect of a license application is inadequate or unacceptable does not give rise to a genuine dispute unless it is supported by facts and a reasoned statement of why the application is unacceptable in some material respect; LBP-06-10, 63 NRC 341 (2006)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-24, 32 NRC 12, 16-17 & n.16 (1990), *aff'd*, ALAB-952, 33 NRC 521, *aff'd*, CLI-91-13, 34 NRC 185 (1991)
all six discretionary intervention factors, regardless of the result on the critical first factor, typically are examined; CLI-06-16, 63 NRC 722 n.47 (2006)
- Fort Stewart Schools v. Federal Labor Relations Authority*, 495 U.S. 641, 654 (1990)
it is a familiar rule of administrative law that an agency must abide by its own regulations; LBP-06-4, 63 NRC 109 n.38 (2006)
- Founding Church of Scientology v. Kelley*, 77 F.R.D. 378, 380-81 (D.D.C. 1977)
government stays are requested because of concerns that broad disclosure of the essentials of prosecution's case may lead to perjury and manufactured evidence, revealing the identity of prospective witnesses may create the opportunity for intimidation, and criminal defendants may unfairly surprise the prosecution at trial with information developed through discovery, while the self-incrimination privilege would effectively block any attempts by the Government to discover relevant evidence from the defendants; LBP-06-13, 63 NRC 539 n.48 (2006)

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- Friends of Southeast's Future v. Morrison*, 153 F.3d 1059, 1067 (9th Cir. 1998)
in selecting the preferred alternative under NEPA, it is appropriate for an agency to consider the stated purposes of a project; CLI-06-10, 63 NRC 468 (2006)
- Fuel Safe Washington v. Federal Energy Regulatory Commission*, 389 F.3d 1313, 1329 (10th Cir. 2004)
a final environmental impact statement need only furnish such information as appears to be reasonably necessary under the circumstances for evaluation of a proposed action; CLI-06-15, 63 NRC 706 (2006)
- Fusari v. Steinberg*, 419 U.S. 379, 391 (1975) (Burger, C.J., concurring)
counsel have a broader, more general duty of candor and good faith, which is related to the duty to update a tribunal about any development that may conceivably affect the outcome of litigation; LBP-06-10, 63 NRC 370 (2006)
- General Dynamics Corp. v. Selb Manufacturing Co.*, 481 F.2d 1204, 1212 (8th Cir. 1973)
a party seeking to indefinitely postpone civil discovery has the burden to make a particular and specific demonstration of fact, as distinguished from stereotyped and conclusory statements; LBP-06-13, 63 NRC 540 n.52 (2006)
- General Public Utilities Nuclear Corp.* (Oyster Creek Nuclear Generating Station), LBP-96-23, 44 NRC 143, 160-61 (1996)
discretionary intervention is an extraordinary procedure that is rarely granted; CLI-06-16, 63 NRC 716 (2006)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995)
an intervention petitioner must demonstrate a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; LBP-06-4, 63 NRC 103 (2006)
individual petitioners may demonstrate standing to participate in a proceeding based on their proximity within 50 miles of a nuclear plant; LBP-06-10, 63 NRC 328 (2006)
when assessing whether a petitioner has set forth a sufficient interest to intervene, the Commission applies traditional judicial concepts of standing; LBP-06-4, 63 NRC 103 (2006); LBP-06-10, 63 NRC 327 (2006)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116 (1995)
demonstrating standing based on geographical proximity requires a determination that the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences; LBP-06-4, 63 NRC 105 (2006)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116-17 (1995)
in determining standing, a petitioner's proximity to the proposed source of radioactivity must also be judged on a case-by-case basis, taking into account the nature of the proposed action and the significance of the radioactive source; LBP-06-4, 63 NRC 106 (2006)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 118 (1995)
although support for a contention may be weak and the contention may be technically imperfect, it may still raise a valid and significant issue with reasonably specific factual and legal allegations and be sufficient to support further inquiry; LBP-06-10, 63 NRC 381 (2006)
at the contention admissibility stage, a petitioner need not proffer facts in formal affidavit or evidentiary form, sufficient to withstand a summary disposition motion, but it must present sufficient information to show a genuine dispute and reasonably indicate that a further inquiry is appropriate; LBP-06-10, 63 NRC 342 (2006)
demonstration that intervention petitioners have expert assistance to address the issues they raise is sometimes in the form of an affidavit or written statement of an expert's opinion, but this is not required; LBP-06-10, 63 NRC 380 (2006)
the contention admissibility rules do not require a petitioner to prove its case at the contention stage; LBP-06-10, 63 NRC 342 (2006)
the scope of a proceeding generally is defined by the Commission's notice of opportunity for hearing; LBP-06-12, 63 NRC 420 (2006)

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- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 120 (1995)
allegations of management improprieties must be of more than historical interest; CLI-06-10, 63 NRC 464 (2006)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305, vacated in part and remanded on other grounds, CLI-95-10, 42 NRC 1, and *aff'd in part*, CLI-95-12, 42 NRC 111 (1995)
a licensing board may not make factual inferences on a petitioner's behalf; LBP-06-10, 63 NRC 340 (2006)
a petitioner is required to provide the analyses and expert opinion showing why its bases support its contention; LBP-06-10, 63 NRC 340 (2006)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-92-3, 35 NRC 63, 66 (1992)
lack of a brief is sufficient reason, without more, to reject petitioner's "appeal"; CLI-06-6, 63 NRC 163 (2006)
- Girsh v. Jepson*, 521 F.2d 153 (3d Cir. 1975)
when evaluating whether a settlement in an enforcement proceeding is in the public interest, four factors are considered; LBP-06-18, 63 NRC 837 (2006)
- GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 201 (2000)
NRC Staff is not a party in license transfer cases; CLI-06-2, 63 NRC 12 (2006)
- GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 202 (2000)
for an organization to establish representational standing, it must show that at least one of its members may be affected by the licensing action and, accordingly, would have standing to sue in his or her own right, must identify that member by name and address, and must show that the organization is authorized to request a hearing on behalf of that member; LBP-06-7, 63 NRC 195 (2006)
- GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 203 (2000)
petitioner's statement that the unenforceability of the antitrust conditions will adversely affect its "important rights relating to generation, transmission, and distribution" services is too vague and general to show a real potential for injury sufficient for standing; CLI-06-2, 63 NRC 16 (2006)
- GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000)
absent evidence to the contrary, the Commission will not assume that licensees will contravene its regulations; LBP-06-7, 63 NRC 208-09 (2006); LBP-06-12, 63 NRC 412 (2006)
- GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000)
a contention will be ruled inadmissible where the petitioner has offered only bare assertions and speculation; LBP-06-7, 63 NRC 208 (2006)
- Greene v. McElroy*, 360 U.S. 474, 492 (1959)
the right to hold specific private employment and to follow a chosen profession free from unreasonable governmental interference comes within the liberty and property concepts of the Fifth Amendment; LBP-06-13, 63 NRC 557 n.118 (2006)
- Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 51 (1994)
at the contention admissibility stage, a petitioner need not proffer facts in formal affidavit or evidentiary form, sufficient to withstand a summary disposition motion, but it must present sufficient information to show a genuine dispute and reasonably indicate that a further inquiry is appropriate; LBP-06-7, 63 NRC 222 (2006); LBP-06-10, 63 NRC 342 (2006)
the contention admissibility rules do not require a petitioner to prove its case at the contention stage; LBP-06-10, 63 NRC 342 (2006)
- Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-183, 7 AEC 222, 224 & n.5 (1974)
close proximity to a facility has always been deemed to be enough, standing alone, to establish the requisite interest to confer standing; LBP-06-7, 63 NRC 196 (2006)
- Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 773 (1977)
information arising from a discussion of proposed changes to nonbinding guidance documents regarding a generic problem, standing alone, is insufficient to support an admissible contention; LBP-06-11, 63 NRC 400 (2006)
NRC Staff guidance documents are not binding and therefore nonconformance with such guidance does not equate to noncompliance with the regulations; LBP-06-11, 63 NRC 400 n.8 (2006)

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- Harris v. United States*, 933 F. Supp. 972 (D. Idaho 1995)
remedies short of complete abeyance of a proceeding are sometimes appropriate; LBP-06-13, 63 NRC 538 n.43 (2006)
- Heckler v. Campbell*, 461 U.S. 458, 467 (1983)
agencies generally are free to exercise their discretion in determining whether to formulate policy through rulemaking or adjudication; LBP-06-7, 63 NRC 203 (2006)
- Hicks v. City of New York*, 268 F. Supp. 2d 238, 241 (E.D.N.Y. 2003)
convenience in managing caseload and efficiency in using resources, the interests of nonparties, and the public interest may be considered in determining whether to delay a proceeding; LBP-06-13, 63 NRC 535 n.30 (2006)
- Horn v. District of Columbia*, 210 F.R.D. 13 (D.D.C. 2002)
sometimes the pendency of a criminal prosecution does not necessitate delaying a parallel civil or administrative proceeding; LBP-06-13, 63 NRC 538 n.42 (2006)
- Horn v. District of Columbia*, 210 F.R.D. 13, 16 (D.D.C. 2002)
a claim of likely interference falls far short of the showing of hardship or inequality required to establish good cause for delay of a proceeding; LBP-06-13, 63 NRC 541 n.56 (2006)
- Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 390-94 (1979)
organizational petitioners must be authorized by individual affected members who have authorized the organization to represent them; LBP-06-10, 63 NRC 328 (2006)
- Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 548 (1980)
in passing upon the question as to whether an intervention petition should be granted, it is not the function of a licensing board to reach the merits of any contention contained therein; LBP-06-6, 63 NRC 177 (2006)
- Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 646 (1979)
organizational petitioners must be authorized by individual affected members who have authorized the organization to represent them; LBP-06-10, 63 NRC 328 (2006)
- Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 649 (1979)
although support for a contention may be weak and the contention may be technically imperfect, it may still raise a valid and significant issue with reasonably specific factual and legal allegations and be sufficient to support further inquiry; LBP-06-10, 63 NRC 381 (2006)
it is neither congressional nor Commission policy to exclude parties because the niceties of pleading were imperfectly observed, the sounder practice being to decide issues on their merits, not to avoid them on technicalities; LBP-06-10, 63 NRC 340 (2006)
- Houston Lighting and Power Co.* (South Texas Projects, Units 1 and 2), ALAB-799, 21 NRC 360, 381-84 (1985)
a party that had not previously adopted the withdrawing party's contention may replace the withdrawing party upon a favorable balancing of the timeliness factors; LBP-06-18, 63 NRC 840 (2006)
- Houston Lighting and Power Co.* (South Texas Projects, Units 1 and 2), ALAB-799, 21 NRC 360, 382 (1985)
the initial admission of a contention does not automatically establish the existence of a serious environmental or safety issue for purposes of a board exercising its authority to raise an issue *sua sponte*; LBP-06-18, 63 NRC 840 (2006)
when a party withdraws from a proceeding, its contentions do not necessarily continue as important safety issues requiring litigation under a Board's *sua sponte* authority; LBP-06-18, 63 NRC 840 (2006)
- Houston Lighting and Power Co.* (South Texas Projects, Units 1 and 2), ALAB-799, 21 NRC 360, 382-83 (1985)
withdrawal of a party from a proceeding results in the removal of the withdrawing party's contentions from litigation; LBP-06-18, 63 NRC 840 (2006)
- Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 444 (4th Cir. 1996)
"new information" requires a supplemental environmental impact statement when it raises a previously unknown environmental concern, but not necessarily when it amounts to mere additional

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- evidence supporting one side or the other of a disputed environmental effect; CLI-06-3, 63 NRC 28 (2005)
- Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-16, 48 NRC 119, 121-22 (1998)
licensing boards do not have jurisdiction over matters properly before other regulatory bodies; LBP-06-8, 63 NRC 280 n.32 (2006)
- Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3, 6 (1999)
where a presiding officer has reviewed an extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed; CLI-06-1, 63 NRC 2 (2006)
- Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-99-15, 49 NRC 261, 266-67, *interlocutory petition for review denied*, CLI-99-8, 49 NRC 311 (1999)
radioactive emissions from material left on the mine site, as well as emissions from an underground mine, should be not be considered part of the total effective dose equivalent from licensee's operations; CLI-06-14, 63 NRC 515 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-00-12, 52 NRC 1, 3 (2000)
the Commission's denial of review is not a decision on the merits, but simply indicates that the appealing party identified no clearly erroneous factual finding or important legal error requiring Commission correction; LBP-06-1, 63 NRC 59 n.15 (2006)
where a presiding officer has reviewed an extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed; CLI-06-1, 63 NRC 2 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 39 (2001)
a stay of indeterminate length would adversely affect NRC's ability to plan and allocate resources for adjudicatory proceedings by having a proceeding lurking on the agency case docket, pending on a timetable to be triggered only by, and thus subject to the exclusive knowledge and control of, an entity other than itself; CLI-06-12, 63 NRC 502 n.18 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 44 (2001)
NEPA is a procedural statute that does not require an agency to select any particular options; CLI-06-10, 63 NRC 467 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 46 (2001)
generalized claims followed by unelaborated references to oral arguments and multiple pages run afoul of page limitation rules; CLI-06-10, 63 NRC 476 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 53 (2001)
when a Board decision supplements or differs from the findings of the Staff as set forth in its final environmental impact statement, the FEIS is deemed modified by the decision to that extent; LBP-06-8, 63 NRC 260 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 54 (2001)
the "no-action" alternative is most simply viewed as maintaining the status quo; CLI-06-10, 63 NRC 468 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001)
agencies need only consider those alternatives that can achieve the purposes of the proposed action; CLI-06-10, 63 NRC 469 (2006)
when a federal agency acts, not as a proprietor, but to approve a project being sponsored by a local government or private applicant, the federal agency is necessarily more limited; CLI-06-10, 63 NRC 468 (2006)
when the purpose of a project is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved; CLI-06-10, 63 NRC 469 (2006)
when reviewing a license application filed by a private applicant, NRC may appropriately accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project; CLI-06-10, 63 NRC 468 (2006); LBP-06-8, 63 NRC 259 (2006)

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- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55-56 (2001)
when reviewing a license application filed by a private applicant, NRC should take into account the needs and goals of the parties involved in the application; CLI-06-10, 63 NRC 468 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 61-62 (2001)
cumulative impacts analysis looks to whether the impacts from a proposed project will combine with the existing, residual impacts in the area to result in a new impact that is significantly enhanced by already existing environmental effects; LBP-06-1, 63 NRC 60 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-33, 60 NRC 581, 596 (2004)
Staff guidance documents generally do not constitute legally binding interpretations of agency regulations; LBP-06-15, 63 NRC 624 (2006)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-33, 60 NRC 581, 597 (2004)
in estimating labor costs for its financial assurance plan relative to its proposed uranium mining operation, an applicant is entitled to draw upon its prior experience in that field as a basis for its cost estimates; LBP-06-15, 63 NRC 641-42 n.44 (2006)
- Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-1, 63 NRC 1, 2 (2006)
the Commission has discretion to review all underlying factual issues *de novo*, but it is disinclined to do so where a board has weighed arguments presented by experts and rendered reasonable, record-based factual findings; CLI-06-15, 63 NRC 697 (2006)
- Idahoan Fresh v. Advantage Produce, Inc.*, 157 F.3d 197, 202 (3d Cir. 1998)
a basic tenet of statutory construction, equally applicable to regulatory construction, is that a statute should be construed so that effect is given to all its provisions; CLI-06-11, 63 NRC 491 (2006)
- In re Bluewater Network*, 234 F.3d 1305, 1315 (D.C. Cir. 2000)
mandamus may lie where there is a clear duty to act and the agency has unreasonably delayed the contemplated action; LBP-06-13, 63 NRC 560 n.129 (2006)
- In re Bock*, 297 B.R. 22, 31-32 (Bankr. W.D.N.C. 2002)
the purpose and scope of the duty of candor that is placed on lawyers is described; LBP-06-10, 63 NRC 371 n.10 (2006)
- In re CFS-Related Securities Fraud Litigation*, 256 F. Supp. 2d 1227, 1239 (N.D. Okla. 2003)
in a complex case, a party has an interest in getting an early start on discovery to ensure the judicious use of resources, and thus granting a stay and preventing early discovery is prejudicial; LBP-06-13, 63 NRC 542 n.63 (2006)
- In re Discipline of Timothy J. Wilka*, 638 N.W.2d 245, 249 (S.D. 2001)
avoidance of evasive responses to a tribunal has been held to fall within a lawyer's duty of candor; LBP-06-10, 63 NRC 371 (2006)
- In re Dobson*, 572 A.2d 328, 334 (Conn. 1990), *cert. denied*, *Dodson v. Superior Court*, 498 U.S. 896 (1990)
the duty of trial judges to deter and correct misconduct of attorneys with respect to their obligations as officers of the court is related to the need to support the authority of the tribunal and enable the proceeding to go forward with dignity; LBP-06-10, 63 NRC 369 (2006)
- In re Franklin National Bank Securities Litigation*, 478 F. Supp. 577, 583 (E.D.N.Y. 1979)
in balancing the need for deliberative documents against the government's interest in nondisclosure, courts have considered relevance of evidence sought to be protected, availability of other evidence, seriousness of litigation and issues involved, role of government in the litigation, and possibility of future timidity by government employees who will be forced to recognize that their secrets are violable; LBP-06-3, 63 NRC 92 (2006)
- In re Ramu Corp.*, 903 F.2d 312 (5th Cir. 1990)
sometimes the pendency of a criminal prosecution does not necessitate delaying a parallel civil or administrative proceeding; LBP-06-13, 63 NRC 538 n.42 (2006)
- In re Ramu Corp.*, 903 F.2d 312, 318-19 (5th Cir. 1990)
discretionary stays will be reversed when they are immoderate or of an indefinite duration; LBP-06-13, 63 NRC 536 n.32 (2006)
- In re Ramu Corp.*, 903 F.2d 312, 320 (5th Cir. 1990)
a stay was lifted because the government failed to demonstrate prejudice to a pending criminal case or investigation; LBP-06-13, 63 NRC 541 n.56 (2006)

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- since any relationship between criminal and civil cases raises the prospect of civil discovery abuse that can prejudice the criminal case, good cause requires more than the mere possibility of prejudice; LBP-06-13, 63 NRC 541 (2006)
- the party requesting a delay must provide detailed and specific reasons demonstrating some type of cognizable harm would result absent that relief; LBP-06-13, 63 NRC 540 (2006)
- In re Ross*, 162 B.R. 860 (B. Ct. D. Idaho 1993)
- sometimes the pendency of a criminal prosecution does not necessitate delaying a parallel civil or administrative proceeding; LBP-06-13, 63 NRC 538 n.42 (2006)
- In re Subpoena Duces Tecum*, 145 F.3d 1422, 1423-24 (D.C. Cir. 1998)
- five factors are applied to test for qualifying the deliberative process privilege; LBP-06-3, 63 NRC 92 n.10 (2006)
- In re Subpoena Served upon the Comptroller of the Currency*, 967 F.2d 630, 634 (D.C. Cir. 1992)
- five factors are applied to test for qualifying the deliberative process privilege; LBP-06-3, 63 NRC 92 n.10 (2006)
- Independent Towers of Washington v. Washington*, 350 F.3d 925, 929 (9th Cir. 2003)
- the Staff, like every participant in the adjudicative process, has an obligation to fully develop its arguments; LBP-06-7, 63 NRC 223 n.34 (2006)
- Jaskiewicz v. Mossinghoff*, 822 F.2d 1053, 1057 & n.15 (Fed. Cir. 1987)
- sanctions may be levied against an attorney for breach of a duty of candor and good faith; LBP-06-10, 63 NRC 370 n.8 (2006)
- Jones v. Gordon*, 792 F.2d 821, 828 (9th Cir. 1986)
- an explanation of the applicability of a categorical exclusion is required where special circumstances necessitating an environmental review have been alleged; LBP-06-4, 63 NRC 109 n.36 (2006)
- Kansas Gas and Electric Co.* (Wolf Creek Generating Station, Unit 1), CLI-99-19, 49 NRC 441, 466 (1999)
- under a Staff order approving a license transfer, entities that would no longer be licensees are deleted from the licenses; CLI-06-2, 63 NRC 12 n.9 (2006)
- Keating v. Office of Thrift Supervision*, 45 F.3d 322, 324-25 (9th Cir. 1995)
- convenience in managing caseload and efficiency in using resources, the interests of nonparties, and the public interest may be considered in determining whether to delay a proceeding; LBP-06-13, 63 NRC 535 n.30 (2006)
- Keating v. Office of Thrift Supervision*, 45 F.3d 322, 325 (9th Cir. 1995)
- the extent to which the defendant's Fifth Amendment rights are implicated should be considered in deciding whether to stay a civil proceeding; LBP-06-13, 63 NRC 538 n.45 (2006)
- the burden that any particular aspect of the proceedings may impose on defendants should be considered when deciding whether to stay a parallel civil proceeding; LBP-06-13, 63 NRC 539 n.47 (2006)
- Kelley v. Selin*, 42 F.3d 1501, 1508 (6th Cir. 1995)
- to qualify for standing a petitioner must allege a concrete and particularized injury that is fairly traceable to the challenged action and likely to be redressed by a favorable decision; LBP-06-10, 63 NRC 327 (2006)
- Kerr-McGee Chemical Corp. v. NRC*, 903 F.2d 1, 2-4 (D.C. Cir. 1990)
- to provide for the disposal, long-term stabilization, and control of mill tailings in a safe and environmentally sound manner, Congress enacted the Uranium Mill Tailings Radiation Control Act; LBP-06-1, 63 NRC 64 n.20 (2006)
- Land Council v. Powell*, 395 F.3d 1019, 1027-28 (9th Cir. 2005)
- there is no basis for providing an EIS description to such a level of detail that it can be duplicated by members of the public, so as to permit an individual to run applicable computer codes or make other detailed computations; LBP-06-9, 63 NRC 302, 310 n.10 (2006)
- Landis v. North American Co.*, 299 U.S. 248, 255 (1936)
- it would be an abuse of discretion to grant a stay of indefinite duration in the absence of pressing need; LBP-06-13, 63 NRC 536 n.32 (2006)
- Lesser v. City of Cape May*, 110 F. Supp. 2d 303, 328 (D. N.J. 2000)
- the National Historic Preservation Act and its implementing regulations do not impose an obligation to consider alternative sites; CLI-06-9, 63 NRC 449 (2006)

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- Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 725, 743 (3d Cir. 1989)
Council on Environmental Quality regulations are not binding on the NRC when the agency has not expressly adopted them, but the regulations are entitled to considerable deference; LBP-06-8, 63 NRC 258 n.14 (2006)
- Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 739 (3d Cir. 1989)
agencies may decline to examine remote and speculative or inconsequentially small impacts of a proposed action; LBP-06-8, 63 NRC 259 (2006)
- Logan v. Zimmerman Brush Co.*, 455 U.S. 422, 434 (1982)
the risk that an immediately effective order erroneously suspended a subject's license or other vested interest is one factor used to determine whether procedural due process is met when a property interest is at stake; LBP-06-13, 63 NRC 544 (2006)
to ensure that a hearing delay comports with the requirements of due process, the decision to grant a delay requested by the government must take into consideration not only the interests of the government but of the persons affected by the order as well; LBP-06-13, 63 NRC 542 (2006)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-99, 6 AEC 53, 55 (1973)
the introduction of essentially generic issues, not unique to any given reactor, would be inappropriate in an individual reactor licensing proceeding" absent evidence that the generic issue applied to that particular proceeding; LBP-06-11, 63 NRC 400 (2006)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973)
NEPA's requirement that agencies take a hard look at the environmental impacts of a proposed action and reasonable alternatives to that action is subject to a rule of reason in that the agency's environmental review, rather than addressing every impact that could possibly result, need only account for those that have some likelihood of occurring or are reasonably foreseeable; LBP-06-8, 63 NRC 259 (2006)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-773, 19 NRC 1333, 1345 (1984)
even if a draft document for which deliberative process privilege is asserted is relevant and important, once the final version of the document becomes available, the need for the draft (or comments suggesting changes to a draft) may become moot or minimal; LBP-06-3, 63 NRC 92 (2006)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-900, 28 NRC 275, 288, *review denied*, CLI-88-11, 28 NRC 603 (1988)
administrative history and other available guidance may be consulted for background information and the resolution of ambiguities in a regulation's language; CLI-06-11, 63 NRC 491 (2006)
interpretation of administrative history and other available guidance may not conflict with the plain meaning of the wording used in that regulation; CLI-06-5, 63 NRC 154 (2006)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-82-82, 16 NRC 1144, 1153 (1982)
the burden is on a party claiming the protection of a privilege to establish those facts that are the essential elements of the privilege; LBP-06-10, 63 NRC 335 n.68 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-12, 46 NRC 52, 53 (1997)
Commission review of an initial decision is purely discretionary; CLI-06-11, 63 NRC 485 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 84 (1998)
a board appropriately deems environmental contentions based on licensee's environment report as challenges to the Staff final environmental impact statement; LBP-06-8, 63 NRC 263 n.7 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998)
as a general matter, NEPA imposes procedural restraints on agencies, requiring them to take a hard look at the environmental impacts of a proposed action and reasonable alternatives to that action; LBP-06-8, 63 NRC 258 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 88 (1998)
nothing in NEPA requires agencies to select the most environmentally benign option or to require an applicant/licensee to do so; LBP-06-15, 63 NRC 649 n.58 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 89 (1998)
NEPA requires a weighing of the environmental costs of a project against its benefits to society at large but does not transform financial costs and benefits into environmental costs and benefits; CLI-06-3, 63 NRC 30 (2005)

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- the final environmental impact statement and board initial decisions (and any subsequent final decision by the Commission) together form the record of decision in a contested proceeding; LBP-06-8, 63 NRC 260 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 94 (1998), *aff'g* LBP-96-25, 44 NRC 331, 369-70 (1996)
- adjudicatory findings on NEPA issues become part of the environmental record of decision and in effect supplement the final environmental impact statement; CLI-06-15, 63 NRC 707 n.91 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 100 (1998)
- NRC's goal regarding environmental justice is to identify and adequately weigh, or mitigate, effects on low-income and minority communities by assessing impacts peculiar to those communities; LBP-06-10, 63 NRC 366 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 103 (1998)
- agencies have considerable discretion in determining the extent to which a particular subject is analyzed; LBP-06-8, 63 NRC 259 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 104 (1998)
- when reviewing an application filed by a private entity, as opposed to a federally sponsored project, the agency may accord substantial weight to the preferences of the applicant with regard to the consideration of alternatives, including choices regarding site selection and project design; LBP-06-8, 63 NRC 259 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-97-3, 45 NRC 99, 105 (1997)
- the term "plausible strategy" is interpreted as requiring an applicant to demonstrate a reasonable or credible plan to dispose of depleted uranium hexafluoride tails generated at the its facility; LBP-06-15, 63 NRC 626 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-97-3, 45 NRC 99, 106-08 (1997)
- where applicant had provided documentation even less concrete than an memorandum of understanding, the Board found that applicant had adequately demonstrated the plausibility of its deconversion strategy; LBP-06-15, 63 NRC 637 n.36 (2006)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-97-3, 45 NRC 99, 108 (1997)
- a plan to convert depleted uranium at an offsite facility in the United States and then ship that material as waste to a final disposal site is a reasonable and credible plan for tails disposal; LBP-06-15, 63 NRC 626 (2006)
- although no deconversion facility exists in the United States and applicant had not presented any firm commitment in the form of a contract or otherwise by any entity to construct such a facility, the Board determined that those facts did not make it unlikely or unreasonable to assume that one would be built here in the future; LBP-06-15, 63 NRC 626 (2006)
- the purpose of requiring an applicant to provide a tails disposal strategy is to enable the computation of reasonable cost estimates for the various essential elements of the decommissioning plan; LBP-06-15, 63 NRC 626 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-3, 59 NRC 10, 13 (2004)
- regardless of whether the proceeding is contested or uncontested, a licensing board must consider three baseline NEPA issues; LBP-06-17, 63 NRC 765 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223 (2004), *reconsideration denied*, CLI-04-35, 60 NRC 619 (2004)
- a reply cannot expand the scope of the arguments set forth in the original hearing request; CLI-06-17, 63 NRC 732 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 224 (2004)
- a board will take into account any information from reply briefs that legitimately amplifies issues presented in original petitions in a case, but it will not consider instances of what essentially constitute untimely attempts to amend the original petition; LBP-06-10, 63 NRC 329 (2006)
- allowing a party to freely augment its contentions in its reply would circumvent the requirements for late or amended contentions in 10 C.F.R. 2.309(c) and (f)(2); LBP-06-12, 63 NRC 405 (2006)
- reply briefs that introduce new issues must address the late-filing factors in section 2.309(c), (f)(2); LBP-06-10, 63 NRC 329 (2006)

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- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 224-25 (2004)
contention admissibility and timeliness requirements demand a level of discipline and preparedness on the part of petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the outset; LBP-06-11, 63 NRC 396 n.3 (2006); LBP-06-12, 63 NRC 405 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004)
a petitioner may in instances of exigent or unavoidable circumstances file a request for an extension of time to file an original hearing petition and contentions; LBP-06-10, 63 NRC 329 n.31 (2006)
a petitioner who has failed to develop an argument in its intervention petition is foreclosed from doing so in the first instance in its reply brief; CLI-06-9, 63 NRC 439 n.29 (2006); LBP-06-7, 63 NRC 217 n.28 (2006)
any reply to an answer to a motion should be narrowly focused on the legal or logical arguments presented in the applicant/licensee or the NRC Staff answer; LBP-06-10, 63 NRC 328 n.26 (2006); LBP-06-12, 63 NRC 405 (2006)
there simply would be no end to NRC licensing proceedings if petitioners could disregard the timeliness requirements and add new bases or new issues that simply did not occur to them at the outset; LBP-06-12, 63 NRC 405 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 226 (2004)
although a “plausible strategy” for private conversion of depleted uranium tails does not mean a definite or certain strategy, it must represent more than mere speculation; LBP-06-15, 63 NRC 637 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 622-23 (2004)
allowing petitioners to file vague, unsupported contentions, and later on appeal change or add contentions at will would defeat the purpose of NRC’s contention pleading rules; CLI-06-10, 63 NRC 458 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 623 (2004)
a petitioner may in instances of exigent or unavoidable circumstances file a request for an extension of time to file an original hearing petition and contentions; CLI-06-10, 63 NRC 458 (2006); LBP-06-10, 63 NRC 329 n.31 (2006)
any reply to an answer to a motion should be narrowly focused on the legal or logical arguments presented in the applicant/licensee or NRC Staff answer; LBP-06-10, 63 NRC 328 n.26 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 625 (2004)
a board will take into account any information from reply briefs that legitimately amplifies issues presented in original petitions in a case, but it will not consider instances of what essentially constitute untimely attempts to amend the original petition; LBP-06-10, 63 NRC 329 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 626-27 (2004)
an interested state that has not been admitted as a party will be afforded a reasonable opportunity to participate in a hearing; LBP-06-7, 63 NRC 227 n.37 (2006)
excusing a discretionary intervenor from the contention requirement would leave that intervenor free to litigate issues it had not raised, giving that intervenor a participatory role much broader than that of an intervenor as of right, who may litigate only its own contentions or those of another intervenor that it has properly adopted; CLI-06-16, 63 NRC 719 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-5, 61 NRC 22, 34-35 (2005)
depleted uranium is a low-level radioactive waste, and therefore, transfer of depleted uranium to DOE is a plausible waste disposal strategy; CLI-06-15, 63 NRC 705 n.86 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 723 (2005)
where a presiding officer has reviewed an extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed; CLI-06-1, 63 NRC 2 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 724 (2005)
nonproliferation goals and concerns span a host of factors far removed from the licensing actions; CLI-06-10, 63 NRC 463 (2006)
generalized concerns about national security and nonproliferation do not amount to an admissible contention; CLI-06-10, 63 NRC 470 (2006)

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- Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-04-14, 60 NRC 40, 56 (2004)
a board may not make assumptions of fact that favor an intervention petitioner or supply information that is lacking in its petition; LBP-06-7, 63 NRC 232 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-04-14, 60 NRC 40, 58 (2004)
reply briefs that introduce new issues must address the late-filing factors in section 2.309(c), (f)(2); LBP-06-10, 63 NRC 329 (2006)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-05-13, 61 NRC 385, 440, 444-45 (2005)
applicant may rely on public statements of market participants regarding plans to close old enrichment facilities or open new ones; LBP-06-15, 63 NRC 630 (2006)
- Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-121, 6 AEC 319, 320 (1973)
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- Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1107 (1983)
challenges to the implementing procedures for a 10 C.F.R. Part 50 reactor emergency plan are not material to licensing proceedings; LBP-06-12, 63 NRC 408 (2006)
- Louisiana Public Service Commission v. Federal Communications Commission*, 476 U.S. 355, 372 (1986)
technical terms of art should be interpreted by reference to the trade or industry to which they apply; CLI-06-14, 63 NRC 519 (2006)
- Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992)
an intervention petitioner must demonstrate a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; LBP-06-4, 63 NRC 103 (2006)
- Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992)
to satisfy the redressability element of standing, it must be "likely," as opposed to merely "speculative" that the injury will be redressed by a favorable decision; LBP-06-4, 63 NRC 105 (2006)
- MacGillivray v. Consolidated Rail Corp.*, No. 91-0774, 1992 WL 57915, at 2-3 (E.D. Pa., Mar. 17, 1992)
in response to claims of attorney-client and attorney work product privilege, the identity of an expert retained by a party is discoverable; LBP-06-10, 63 NRC 335 n.68 (2006)
- Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989)
a supplemental environmental impact statement is needed where new information raises new concerns of sufficient gravity that another, formal in-depth look at the environmental consequences of the proposed action is necessary; CLI-06-3, 63 NRC 28 (2005)
- Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 378 (1989)
an environmental impact statement need not be supplemented where new and accurate information contained in a study was not significant and significant information was not new and accurate; CLI-06-3, 63 NRC 29 (2005)
- Massachusetts Coalition of Citizens with Disabilities v. Civil Defense Agency*, 649 F.2d 71, 75 (1st Cir. 1981)
merely raising the specter of a nuclear accident does not demonstrate irreparable harm; CLI-06-8, 63 NRC 238 (2006)
- Massachusetts School of Law at Andover v. United States*, 118 F.3d 776 (D.C. Cir. 1997)
when evaluating whether a settlement in an enforcement proceeding is in the public interest, four factors are considered; LBP-06-18, 63 NRC 837 (2006)
- Massachusetts v. NRC*, 924 F.2d 311, 321-22 (D.C. Cir. 1991)
any decision to indefinitely delay a hearing on the merits of an immediately effective order would be subject to judicial review as a final agency action; LBP-06-13, 63 NRC 561 n.129 (2006)
- Matthews v. Eldridge*, 424 U.S. 319, 334-35 (1976)
the risk that an immediately effective order erroneously suspended a subject's license or other vested interest is one factor used to determine whether procedural due process is met when a property interest is at stake; LBP-06-13, 63 NRC 544 (2006)

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- Mathews v. Eldridge*, 424 U.S. 319, 335 (1976)
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- McKnight v. Blanchard*, 667 F.2d 477, 479 (5th Cir. 1982)
discretionary stays will be reversed when they are immoderate or of an indefinite duration; LBP-06-13, 63 NRC 536 n.32 (2006)
- McSurely v. McClellan*, 426 F.2d 664, 672 (D.C. Cir. 1970)
an indefinite stay should not be entered unless no alternative is available; LBP-06-13, 63 NRC 536 n.32 (2006)
- Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 2), ALAB-474, 7 NRC 746, 748-49 (1978)
use of intemperate and disrespectful rhetoric has no place in filings before the Commission or its boards; CLI-06-6, 63 NRC 164 n.18 (2006)
- Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 776-78 (1983)
unsubstantiated fear of an effect is not a sufficient basis for an admissible contention; CLI-06-9, 63 NRC 444 n.57 (2006)
- Mississippi Power and Light Co.* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973)
in passing upon the question as to whether an intervention petition should be granted, it is not the function of a licensing board to reach the merits of any contention contained therein; LBP-06-6, 63 NRC 177 (2006); LBP-06-7, 63 NRC 225 (2006)
- Missouri v. Army Corps of Engineers*, 147 F.3d 708, 711 (8th Cir. 1998)
even if a draft document for which deliberative process privilege is asserted is relevant and important, once the final version of the document becomes available, the need for the draft (or comments suggesting changes to a draft) may become moot or minimal; LBP-06-3, 63 NRC 92, 94 (2006)
- Nakash v. Department of Justice*, 708 F. Supp. 1354, 1365-66 (S.D.N.Y. 1988)
government stays are requested because of concerns that broad disclosure of the essentials of prosecution's case may lead to perjury and manufactured evidence, revealing the identity of prospective witnesses may create the opportunity for intimidation, and criminal defendants may unfairly surprise the prosecution at trial with information developed through discovery, while the self-incrimination privilege would effectively block any attempts by the government to discover relevant evidence from the defendants; LBP-06-13, 63 NRC 539 n.48 (2006)
- National Committee for the New River, Inc. v. Federal Energy Regulatory Commission*, 373 F.3d 1323, 1330 (D.C. Cir. 2004)
to reopen a record, new information must paint a seriously different picture of the environmental landscape; CLI-06-3, 63 NRC 28 (2005)
- National Labor Relations Board v. Sears, Roebuck & Co.*, 421 U.S. 132, 150 (1975)
deliberative process privilege protects documents reflecting advisory opinions, recommendations, and deliberations comprising part of a process by which governmental decisions and policies are formulated; LBP-06-3, 63 NRC 91 (2006)
- Nationwide Mutual Insurance Co. v. Home Insurance Co.*, 278 F.3d 621, 628-29 (6th Cir. 2002)
depositions of opposing trial or litigation counsel are permitted only if no other means exist to obtain the information, and the information sought is relevant and nonprivileged, and crucial to the preparation of the case; LBP-06-10, 63 NRC 335 (2006)
- Navajo Nation v. U.S. Forest Service*, 408 F. Supp. 2d 866, 880, 2006 WL 62565 at 11 (D. Ariz. Jan. 11, 2006)
the National Historic Preservation Act requirement for consideration of alternatives comes into play only if the project will have an adverse effect on historic properties, and only after that determination is made; CLI-06-9, 63 NRC 449 (2006)
- New Mexico Mining Commission v. United Nuclear Corp.*, 57 P.3d 862, 864 (N.M. Ct. App. 2002)
the argument by a mining company a state statute gave New Mexico no jurisdiction over its uranium mining because of the clause exempting NRC-regulated activities was rejected because the NRC has never asserted jurisdiction over conventional uranium mining; CLI-06-14, 63 NRC 513 (2006)

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- New York State Department of Social Services v. Dublino*, 413 U.S. 405, 419-20 (1973)
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- North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219-21 (1999)
the Commission and its boards regularly continue to admit for litigation and hearing contentions that are material and supported by reasonably specific factual and legal allegations; LBP-06-10, 63 NRC 380 n.52 (2006)
- Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), CLI-01-3, 53 NRC 22 (2001)
a presiding officer's ruling that is without governing precedent is appropriate for review; CLI-06-7, 63 NRC 166 (2006)
- Northern Lines Merger Cases*, 396 U.S. 491, 521 (1970)
agencies need not reopen adjudicatory proceedings merely on a plea of new evidence; CLI-06-3, 63 NRC 25 (2005)
- Northern States Power Co.* (Tyrone Energy Park, Unit 1), ALAB-492, 8 NRC 251, 252 (1978)
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- Nuclear Fuel Services, Inc.* (Erwin, Tennessee), LBP-04-5, 59 NRC 186, 196 n.11, *aff'd*, CLI-04-13, 59 NRC 244 (2004)
discretionary intervention is an extraordinary procedure that is rarely granted; CLI-06-16, 63 NRC 716 (2006)
- Nuclear Management Co., LLC* (Monticello Nuclear Generating Plant), CLI-06-6, 63 NRC 161, 164 (2006)
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- Ohio Edison Co.*, 105 FERC ¶61,372, at 62,655 n.3 (2003), 2003 WL 23011904 (FERC)
a "control area" is a geographic area within which a single entity balances generation and load in real time in order to maintain reliable operations; CLI-06-2, 63 NRC 14 n.18 (2006)
- Ohio Edison Co.* (Perry Nuclear Power Plant, Unit 1), LBP-91-38, 34 NRC 229, 250-51 (1991), *appeal denied*, CLI-92-11, 36 NRC 47 (1992), *petition for review denied*, *City of Cleveland v. NRC*, 68 F.3d 1361 (D.C. Cir. 1995)
all six discretionary intervention factors, regardless of the result on the critical first factor, typically are examined; CLI-06-16, 63 NRC 722 n.47 (2006)
only eight petitions for discretionary intervention have ever been granted during the 30 years NRC has applied the current six-factor test; CLI-06-16, 63 NRC 717 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44 (1993)
five factors need to be balanced when deciding whether to delay an enforcement proceeding; CLI-06-12, 63 NRC 500 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 49-50 (1993)
when determining whether good cause exists for holding a proceeding in abeyance, the decisionmaker must consider both the public interest and the interests of the person subject to the immediately effective order, and the determination of whether a delay is reasonable depends on the facts of a particular case and requires a balancing of these competing interests; CLI-06-12, 63 NRC 505-06 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 50 (1993)
determination of whether a delay is reasonable depends on the facts of a particular case and requires a balancing of the competing interests; LBP-06-13, 63 NRC 535 (2006)
in deciding whether to delay a proceeding, an adjudicator can do little more than identify some of the factors that courts should assess in determining whether a particular defendant has been deprived of his right; LBP-06-13, 63 NRC 535 n.29 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 50-51 (1993)
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- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 51 (1993)
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- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 52 (1993)
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- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 52-53 (1993)
reasonableness of the length of a delay can be determined only in light of the relative harm thereby being inflicted and/or avoided; LBP-06-13, 63 NRC 545 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 53 (1993)
a licensing board's approval of a delay was granted because the premature release of witness interview transcripts and documentary information would interfere with an NRC ongoing investigation into possible incomplete or inaccurate statements by the licensee's employees and officials; LBP-06-13, 63 NRC 540 (2006)
- delay may require strong justification in a proceeding to revoke a license, which depends to a great extent on the testimony of witnesses, but in a civil penalty proceeding where the penalty has not been paid and the proceeding depends less on witness testimony, a delay may need less justification; LBP-06-13, 63 NRC 536 (2006)
- delay of a proceeding is particularly problematic in cases involving witness testimony; CLI-06-12, 63 NRC 501 (2006)
- in witness-intensive cases, delay of a proceeding is tolerable only if the Staff can demonstrate an important government interest coupled with factors minimizing the risk of an erroneous deprivation; CLI-06-12, 63 NRC 502 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 53, 55 (1993)
in the question of upholding an indefinite delay, the Staff's mere assertion that it wishes to protect DOJ's pending criminal prosecution does not, without more, justify holding NRC's parallel administrative proceeding in abeyance; LBP-06-13, 63 NRC 538 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 53, 60 (1993)
when passing upon delay requests, licensing boards must evaluate whether there is an overriding public interest requiring a delay; LBP-06-13, 63 NRC 537 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 53-57 (1993)
in approving two lengthy stays of NRC proceedings, both the Commission and the Board were concerned that any information made available to the licensee in the enforcement proceeding might undermine a parallel NRC investigation and its potential referral to the Department of Justice for possible criminal prosecution, as well as a concurrent state criminal investigation; CLI-06-12, 63 NRC 503 n.25 (2006)
- the party supporting abeyance of a proceeding carries the burden of proof and must make at least some showing of potential detrimental effect on the pending criminal case; CLI-06-12, 63 NRC 502 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 54-55 (1993)
a delay is granted because NRC's strong interest in ensuring truth and accuracy of information provided to the Commission would be undermined if the personnel were given the opportunity to tailor their testimony or statements in subsequent interviews so as to explain previous statements in order to avoid culpability or conform testimony with the testimony of others who have been interviewed; LBP-06-13, 63 NRC 540 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 54-56, 59 (1993)
both the proponent and opponent of a motion to delay a proceeding are expected to meet specificity requirements in their motions; LBP-06-13, 63 NRC 541 n.58 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 55 (1993)
the pendency of a criminal trial does not automatically toll the time for instituting a civil proceeding because it is necessary to look at the facts of a particular proceeding; LBP-06-13, 63 NRC 537 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 57 (1993)
because the subject of an enforcement order had been given the opportunity to challenge whether there was adequate evidence of the detailed allegations to justify the order's immediate effectiveness

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- and chose not to exercise that opportunity, the risk of erroneous deprivation was reduced, such that this factor weighed in favor of the delay request; LBP-06-13, 63 NRC 544 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 58 (1993)
- failure, before the hearing on the merits, to challenge an order's immediate effectiveness is not necessarily crucial to the fourth stay factor because it could involve simply a strategic decision to avoid delaying the eventual resolution of the merits; LBP-06-13, 63 NRC 543 (2006)
- in an NRC enforcement proceeding, the vigorous opposition to any stay of the proceeding and a constant insistence on a prompt full adjudicatory hearing are entitled to strong weight and militate against the requested delay; LBP-06-13, 63 NRC 543 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 59 (1993)
- a party opposing a delay must make an affirmative showing that its ability to mount a defense will be compromised by the delay; LBP-06-13, 63 NRC 542 n.65 (2006)
- because enforcement cases are fact-specific and typically rely far more on witness testimony than do licensing adjudications, a long delay could result in the fading of witnesses' memories; CLI-06-12, 63 NRC 502 (2006)
- deprivation of the right to speedy trial does not per se prejudice the accused's ability to defend himself; LBP-06-13, 63 NRC 542 (2006)
- determining whether there is prejudice to private interests from delay of a proceeding requires an analysis of the impacts that the enforcement order has on the private interests of the subject of the order, including any financial and reputational harm; LBP-06-13, 63 NRC 542 (2006)
- in the case of an immediately effective enforcement order, the potential prejudice that a delay will cause to the subject of the order, including prejudice to the subject's ability to defend against the charge and prejudice to the subject's private interests as a result of the order, must be considered; LBP-06-13, 63 NRC 542 (2006)
- parties must provide some detail about the various factors that are to be considered in reaching a determination on an abeyance issue; LBP-06-13, 63 NRC 534 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 59-60 (1993)
- as with the prejudice to the ability to defend against an enforcement order because of delay of a proceeding, the harm to financial and reputational interests must be specifically established; LBP-06-13, 63 NRC 542 (2006)
- Oncology Services Corp.*, CLI-93-17, 38 NRC 44, 60 (1993)
- a perfunctory affidavit falls far short of making the particularized showing that is needed to delay an enforcement proceeding; LBP-06-13, 63 NRC 566 (2006)
- a proponent of a motion to hold an enforcement proceeding in abeyance has the burden of showing good cause in the form of an overriding government interest; LBP-06-13, 63 NRC 567 (2006)
- Oncology Services Corp.*, LBP-93-6, 37 NRC 207, 214 (1993)
- in approving two lengthy stays of NRC proceedings, both the Commission and the Board were concerned that any information made available to the licensee in the enforcement proceeding might undermine a parallel NRC investigation and its potential referral to the Department of Justice for possible criminal prosecution, as well as a concurrent state criminal investigation; CLI-06-12, 63 NRC 503 n.25 (2006)
- Oncology Services Corp.*, LBP-93-10, 37 NRC 455, 460-64 (1993)
- in approving two lengthy stays of NRC proceedings, both the Commission and the Board were concerned that any information made available to the licensee in the enforcement proceeding might undermine a parallel NRC investigation and its potential referral to the Department of Justice for possible criminal prosecution, as well as a concurrent state criminal investigation; CLI-06-12, 63 NRC 503 n.25 (2006)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-80-24, 11 NRC 775 (1980)
- petitioners or intervenors may request and, where appropriate, obtain under protective order or other measures information withheld from the general public for proprietary or security reasons; CLI-06-10, 63 NRC 460 (2006)

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- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-84-5, 19 NRC 953, 964 (1984)
merely raising the specter of a nuclear accident does not demonstrate irreparable harm; CLI-06-8, 63 NRC 238 (2006)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 337 (2002)
a cursory argument on standing is insufficient for intervention; CLI-06-2, 63 NRC 16 n.30 (2006)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 346 (2002)
a petitioner should not be entitled to discretionary intervention without an issue of its own worthy of exploration in an adjudication; CLI-06-16, 63 NRC 719 (2006)
denial of a motion for discretionary intervention does not eliminate all possibility of petitioners' participation in the litigation; CLI-06-16, 63 NRC 722 (2006)
discretionary intervention is an extraordinary procedure that is rarely granted; CLI-06-16, 63 NRC 716 (2006)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19, 29 (2003)
the Commission has long declined to assume that licensees will refuse to meet their obligations; LBP-06-7, 63 NRC 207 n.14 (2006)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant Independent Spent Fuel Storage Installation), CLI-03-1, 57 NRC 1 (2003)
terrorism is outside the scope of agency NEPA review; LBP-06-4, 63 NRC 113 (2006)
- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-785, 20 NRC 848, 878 (1984)
once an intervenor has been made aware that a missing analysis in an environmental report has been provided, it is incumbent upon the intervenor to take additional action either to seek to review the analysis and/or to amend its contention; CLI-06-10, 63 NRC 480 (2006)
- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-823, 22 NRC 773, 775 (1985)
after a licensing board dismisses a case, it no longer has jurisdiction over the matter; CLI-06-4, 63 NRC 35 (2006)
- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-836, 23 NRC 479, 499 (1986)
licensing boards do not undertake review of whether another federal agency has complied with its own regulations; LBP-06-15, 63 NRC 629-30 (2006)
- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1479, 1483 (1982)
a board may reframe contentions, following a determination of their admissibility, for purposes of clarity, succinctness, and a more efficient proceeding; CLI-06-16, 63 NRC 720 (2006)
- Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 21 (1974)
NRC's strict contention rule should not be turned into a fortress to deny intervention; LBP-06-10, 63 NRC 380 n.52 (2006)
- Phillips v. Cohen*, 400 F.3d 388, 399 (6th Cir. 2005)
when conflicting expert opinions are involved, summary disposition is rarely appropriate; CLI-06-5, 63 NRC 122 (2006)
- Poller v. Columbia Broadcasting System, Inc.*, 368 U.S. 464, 467 (1962)
summary disposition may be granted only if the truth is clear; CLI-06-5, 63 NRC 121 (2006)
- Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), ALAB-362, 4 NRC 627, 629 (1976)
only eight petitions for discretionary intervention have ever been granted during the 30 years NRC has applied the current six-factor test; CLI-06-16, 63 NRC 717 (2006)

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- Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 612 (1976)
when assessing whether a petitioner has set forth a sufficient interest to intervene, the Commission applies traditional judicial concepts of standing; LBP-06-4, 63 NRC 103 (2006)
- Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 614-17 (1976)
only eight petitions for discretionary intervention have ever been granted during the 30 years NRC has applied the current six-factor test; CLI-06-16, 63 NRC 717 (2006)
- Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 616 (1976)
because NRC resolves discretionary intervention motions largely on their facts, NRC legal precedent is less helpful than on most other adjudicatory issues; CLI-06-16, 63 NRC 717 (2006)
in exercising their discretion to provide hearings or permit interventions, presiding officers and licensing boards traditionally consider the six factors; CLI-06-16, 63 NRC 716 (2006)
- Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 617 (1976)
in balancing the six factors for discretionary hearing, assistance in developing a sound record is the most important; CLI-06-16, 63 NRC 716 (2006)
the practice of granting or denying discretionary intervention should develop not through precedent, but through attention to the concrete facts of particular situations; CLI-06-16, 63 NRC 717 (2006)
- Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 629 (1976)
the Appeal Board has taken the unusual step of declaring that the grant of discretionary intervention carries no precedential weight; CLI-06-16, 63 NRC 717 (2006)
- Porto Rico Railway, Light & Power Co. v. Mor*, 253 U.S. 345, 348 (1920)
because the regulatory words “source, byproduct, [and] special nuclear materials” in 10 C.F.R. 20.1003 are followed by a clause that is applicable as much to the first and other words as to the last, the natural construction of the language demands that the clause be read as applicable to all; LBP-06-1, 63 NRC 58 (2006)
- Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85 (1974)
licensing boards should not accept in individual license proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission; LBP-06-7, 63 NRC 203 (2006)
- Power Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), LBP-00-34, 52 NRC 361, 363 (2000)
withdrawal of a party from a proceeding results in the removal of the withdrawing party’s contentions from litigation; LBP-06-18, 63 NRC 840 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 34 (1998)
the Commission will reverse a licensing board’s determination on discretionary intervention only if the board has abused its discretion; CLI-06-16, 63 NRC 715 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 34-35, *aff’g* LBP-98-7, 47 NRC 47 NRC 142, 177-78 (1998)
generalized expertise, even scientific eminence, is an insufficient substitute for particularized knowledge of the issues actually in dispute; CLI-06-16, 63 NRC 721 n.42 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 35, *aff’g* LBP-98-7, 47 NRC 47 NRC 142, 177-78 (1998)
denial of a motion for discretionary intervention does not eliminate all possibility of petitioners’ participation in the litigation; CLI-06-16, 63 NRC 722 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999)
for an individual to establish standing, he or she must show injury in fact that can fairly be traced to the challenged action and that is likely to be redressed by a favorable decision; LBP-06-7, 63 NRC 195 (2006)

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- representational standing requires a demonstration that one or more of an organization's members would otherwise have standing to intervene on their own, and that such a specifically identified member has authorized the organization to request a hearing on its behalf; LBP-06-4, 63 NRC 104 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 324 (1999)
- the Commission routinely accords substantial deference to the Board on matters involving standing and credibility determinations; CLI-06-16, 63 NRC 718 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999)
- failure of a contention to meet any of the requirements of section 2.309(f)(1) is grounds for its dismissal; LBP-06-7, 63 NRC 198 (2006); LBP-06-10, 63 NRC 336 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-21, 52 NRC 261, 265 (2000)
- the Commission affirms Board decisions on the admissibility of contentions where the appellant points to no error of law or abuse of discretion; CLI-06-9, 63 NRC 439 n.32 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-20, 56 NRC 147, 153 (2002)
- the essence of an environmental justice claim arising under NEPA in an NRC proceeding is disproportionately high and adverse human health and environmental effects on minority and low-income populations that may be different from the impacts on the general population; LBP-06-10, 63 NRC 364 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 343 (2002)
- the Commission scrupulously examines terrorist-related security issues outside the NEPA context; LBP-06-7, 63 NRC 201 n.8 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 347 (2002)
- terrorism is outside the scope of agency NEPA review; LBP-06-4, 63 NRC 113 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 349 (2002)
- courts have excluded from NEPA-mandated review impacts with either a low probability of occurrence, or where the link between the agency action and the claimed impact is too attenuated to find the proposed federal action to be the proximate cause; LBP-06-7, 63 NRC 200 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 17 (2003)
- Commission review of an initial decision is purely discretionary; CLI-06-11, 63 NRC 485 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 20 & n.25 (2003)
- NRC Staff verification that a licensee complies with preapproved design or testing criteria is a highly technical inquiry not particularly suitable for hearing; CLI-06-1, 63 NRC 5 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-26 (2003)
- although the Commission has discretion to undertake a *de novo* factual review, it generally does not exercise that authority where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-06-1, 63 NRC 2 (2006)
- the Commission generally steps in only to correct clearly erroneous findings, that is, findings not even plausible in light of the record viewed in its entirety; CLI-06-15, 63 NRC 697 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-27 (2003)
- the Commission routinely accords substantial deference to the Board on matters involving standing and credibility determinations; CLI-06-16, 63 NRC 719 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-4, 59 NRC 31, 46 (2004)
- a 30-day time frame for filing new contentions has been established; LBP-06-14, 63 NRC 574 (2006)

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- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 140 (2004)
absent extreme circumstances, the Commission will not consider on appeal either new arguments or new evidence supporting the contentions, which the Board never had the opportunity to consider; CLI-06-10, 63 NRC 458 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 145 (2004)
determination of economic benefits and costs that are tangential to environmental consequences are within a wide area of agency discretion; CLI-06-10, 63 NRC 467 n.92 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19 (2006)
until the license has actually been issued, the Commission itself, as opposed to the licensing board, retains jurisdiction to reopen a closed case; CLI-06-4, 63 NRC 36 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, *aff'd*, CLI-98-13, 48 NRC 26 (1998)
the Commission and its boards regularly continue to admit for litigation and hearing contentions that are material and supported by reasonably specific factual and legal allegations; LBP-06-10, 63 NRC 380 n.52 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 160, *aff'd*, CLI-98-13, 48 NRC 26 (1998)
petitioners or intervenors may request and, where appropriate, obtain under protective order or other measures information withheld from the general public for proprietary or security reasons; CLI-06-10, 63 NRC 460 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 47 NRC 142, 177 (1998)
although discretionary intervenors are not expected to show the same kind of injury-in-fact necessary for standing as of right, something more specific than merely a general policy interest in issues surrounding nuclear power is required; CLI-06-16, 63 NRC 724 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 177-78, *aff'd*, CLI-98-13, 48 NRC 26, 34 (1998)
discretionary intervention is an extraordinary procedure that is rarely granted; CLI-06-16, 63 NRC 716 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180, *aff'd*, CLI-98-13, 48 NRC 26 (1998)
a petitioner is required to provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention; LBP-06-10, 63 NRC 340 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181, *aff'd*, CLI-98-13, 48 NRC 26 (1998)
an expert opinion that merely states a conclusion without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion; CLI-06-10, 63 NRC 472 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-00-23, 52 NRC 114, 124 n.6, *aff'd*, CLI-00-21, 52 NRC 261 (2000)
discretionary intervention is an extraordinary procedure that is rarely granted; CLI-06-16, 63 NRC 716 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-3, 53 NRC 84, 99 (2001)
technical perfection is not an essential element of contention pleading; LBP-06-10, 63 NRC 329, 340 (2006)

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- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-23, 54 NRC 163, 171 (2001)
it may be necessary to examine the language of the bases to determine a contention's scope; LBP-06-16, 63 NRC 742 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-39, 54 NRC 497, 509 (2001)
differences among experts may occur either about disputed baseline observations or about the ultimate facts or inferences to be drawn even where baseline facts may be uncontested; CLI-06-5, 63 NRC 122 (2006)
summary disposition is not a tool for trying to convince a licensing board to decide, on the basis of written submissions, genuine issues of material fact that warrant resolution at a hearing; CLI-06-5, 63 NRC 121 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-39, 54 NRC 497, 510 (2001)
regardless of the level of the dispute, at the summary disposition stage, it is not proper for a board to untangle the expert affidavits and decide which experts are more correct; CLI-06-5, 63 NRC 122, 124-25 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-02-20, 56 NRC 169, 180 (2002)
a party opposing summary disposition must counter each adequately supported material fact with its own statement of material facts in dispute and supporting materials, or the movant's facts will be deemed admitted; LBP-06-9, 63 NRC 307 (2006)
a summary disposition movant bears the initial burden of making the requisite showing that there is no genuine issue as to any material fact, which it attempts to do by means of a required statement of material facts not at issue and any supporting materials (including affidavits, discovery responses, and documents) that accompany its dispositive motion; LBP-06-9, 63 NRC 307 (2006)
summary disposition may be entered with respect to any matter (or all of the matters) in a proceeding if the motion, along with any appropriate supporting material, shows that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law; LBP-06-9, 63 NRC 307 (2006)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-05-29, 62 NRC 635, 708-14 (Feb. 24, 2005, as redacted Oct. 28, 2005), *affirmed as to merits*, CLI-05-19, 62 NRC 403 (2005), *appeal pending, sub nom. Utah v. NRC* (D.C. Cir. No. 05-1420)
to protect the probative value of underlying fact-based evidence, delaying the full discovery and presentation of that evidence in an already long-drawn-out proceeding should be avoided where possible; LBP-06-13, 63 NRC 548 n.92 (2006)
- Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170-71 (1976)
contentions are not cognizable unless they are material to matters that fall within the scope of the proceeding for which the licensing board has been delegated jurisdiction as set forth in the Commission's notice of opportunity for hearing; LBP-06-10, 63 NRC 338 (2006)
the scope of a proceeding generally is defined by the Commission's notice of opportunity for hearing; LBP-06-12, 63 NRC 420 (2006)
- Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 442 (1980), *aff'd, Save the Valley v. NRC*, 714 F.2d 142 (6th Cir. 1983) (Table)
NRC has broad discretion to provide hearings or permit intervention in cases where these avenues of public participation would not be available as a matter of right; CLI-06-16, 63 NRC 715 (2006)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 (1988)
it may be necessary to examine the language of the bases to determine a contention's scope; LBP-06-16, 63 NRC 742 (2006)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-942, 32 NRC 395, 428 (1990)
a contention must demonstrate that there has been sufficient foundation assigned for it to warrant further exploration; LBP-06-10, 63 NRC 338 (2006)

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- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-90-3, 31 NRC 219, 257 (1990)
although technically not applicable to a request for a stay of NRC Staff action, the section 2.342(e) standards simply restate commonplace principles of equity universally followed when judicial (or quasi-judicial) bodies consider stays or other forms of temporary injunctive relief; CLI-06-8, 63 NRC 237 n.4 (2006)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-90-3, 31 NRC 219, 259 (1990)
merely raising the specter of a nuclear accident does not demonstrate irreparable harm; CLI-06-8, 63 NRC 238 (2006)
- Public Service Co. of New Hampshire* (Seabrook Station, Unit 1), CLI-91-14, 34 NRC 261, 266-67 (1991)
an intervention petitioner must demonstrate a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; LBP-06-4, 63 NRC 103 (2006)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1656 (1982)
a contention that advocates stricter requirements than those imposed by the regulations is a collateral attack on NRC regulations; LBP-06-10, 63 NRC 348 (2006)
- Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1148-49, *reconsideration denied*, ALAB-402, 5 NRC 1182 (1977)
only eight petitions for discretionary intervention have ever been granted during the 30 years NRC has applied the current six-factor test; CLI-06-16, 63 NRC 717 (2006)
- Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1149, *reconsideration denied*, ALAB-402, 5 NRC 1182 (1977)
the Commission will reverse a licensing board's determination on discretionary intervention only if the board has abused its discretion; CLI-06-16, 63 NRC 715 (2006)
- Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), LBP-78-28, 8 NRC 281, 282 (1978)
in conducting its environmental review, an agency may, in its discretion, rely on data, analyses, or reports prepared by persons or entities other than agency staff, including competent and responsible state authorities, provided that the Staff independently evaluates and takes responsibility for the pertinent information before relying on it in an EIS; LBP-06-8, 63 NRC 259 (2006)
- Public Service Electric and Gas Co.* (Salem Nuclear Generating Station, Units 1 and 2), ALAB-136, 6 AEC 487, 489 (1973)
pleadings submitted by a petitioner acting *pro se* are not always expected to meet the same standards as pleadings drafted by lawyers, but late filing of documents is not condoned; LBP-06-14, 63 NRC 581 (2006)
- Quivira Mining Co.* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 5-6 (1998)
to determine whether a petitioner has established the necessary interest, boards are to look for guidance to judicial concepts of standing; LBP-06-10, 63 NRC 327 (2006)
- Quivira Mining Co.* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 6 (1998)
the requisite injury that qualifies a petitioner for standing must lie within the zone of interests protected by the statutes; LBP-06-10, 63 NRC 327 (2006)
- Rainbow Magazine, Inc. v. Unified Capital Corp.*, 77 F.3d 278, 281 (9th Cir. 1996)
a prior decision should be followed unless it is clearly erroneous and its enforcement would work a manifest injustice, intervening controlling authority makes reconsideration appropriate, or substantially different evidence was adduced at a subsequent trial; CLI-06-11, 63 NRC 489 (2006)
legal determinations made on appeal in a case are controlling precedent, becoming the "law of the case," for all later decisions in the same case; CLI-06-11, 63 NRC 488 (2006)
- RKO General, Inc. v. Federal Communications Commission*, 670 F.2d 215, 232 (D.C. Cir. 1981)
counsel's duty of candor is an affirmative duty to inform the Commission of the facts it needs in order to fulfill its statutory mandate and is basic, and well known; LBP-06-10, 63 NRC 370 (2006)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989)
NEPA is a procedural statute that does not require an agency to select any particular options; CLI-06-10, 63 NRC 467 (2006)

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- Rochester Gas and Electric Corp.* (Sterling Power Project Nuclear Unit No. 1), ALAB-507, 8 NRC 551, 554 n.7 (1978)
NRC authority over uranium ore and other source material attaches only after removal from its place of deposit in nature, and not when the ore is mined; CLI-06-14, 63 NRC 512 (2006)
- Rockwell International Corp.* (Rockeydyne Division), CLI-90-5, 31 NRC 337 (1990)
there was no mention of settlement judges or alternative dispute resolution in the old rules prior to 2004, because the Commission's endorsement of such forms of conflict resolution was found in case law rather than the regulations; LBP-06-18, 63 NRC 840 (2006)
- Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-92-2, 35 NRC 47, 56 (1992)
NRC generally follows judicial concepts of standing in its own proceedings; CLI-06-6, 63 NRC 163 (2006)
- Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, *reconsid'n denied*, CLI-93-12, 37 NRC 355, 358-59, *clarified on other issues*, CLI-93-19, 38 NRC 81 (1993)
only eight petitions for discretionary intervention have ever been granted during the 30 years NRC has applied the current six-factor test; CLI-06-16, 63 NRC 717 (2006)
- Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 141 *reconsid'n denied*, CLI-93-12, 37 NRC 355, 358-59, *clarified on other issues*, CLI-93-19, 38 NRC 81 (1993)
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- Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 146-47 (1993)
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- Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-12, 37 NRC 355, 358 (1993)
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- Safety Light Corp.* (Bloomsburg Site Decontamination), CLI-92-9, 35 NRC 156, 159-60 & n.5 (1992)
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- Securities & Exchange Commission v. Doody*, 186 F. Supp. 2d 379 (S.D.N.Y. 2002)
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- Securities & Exchange Commission v. Dresser Industries*, 628 F.2d 1368 (D.C. Cir. 1980)
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- Securities & Exchange Commission v. Dresser Industries*, 628 F.2d 1368, 1375 (D.C. Cir. 1980)
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- Securities & Exchange Commission v. Dresser Industries*, 628 F.2d 1368, 1384 (D.C. Cir. 1980)
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- Securities & Exchange Commission v. Oakford Corp.*, 181 F.R.D. 269, 272-73 (S.D.N.Y. 1998)
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- Sequoyah Fuels Corp.*, CLI-95-2, 41 NRC 179, 190 (1995)
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- Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-01-2, 53 NRC 9, 13 (2001)
an intervention petitioner must demonstrate that its injury arguably falls within the zone of interests protected by the statutes governing NRC proceedings; LBP-06-4, 63 NRC 103 (2006)
- Sequoyah Fuels Corp.* (Gore Oklahoma Site), CLI-04-2, 59 NRC 5, 8 n.18 (2004)
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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 (1994)
to demonstrate causation, a petitioner must show that an injury is fairly traceable to the proposed action; LBP-06-4, 63 NRC 105 (2006)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994)
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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 71 n.10 (1994)
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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 208 (1997)
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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 209-23 (1997)
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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), LBP-94-5, 39 NRC 54, 75-76 n.23, *aff'd*, CLI-94-12, 40 NRC 64 (1994)
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- Sequoyah Fuels Corp.* (Sequoyah UF₆ to UF₄ Facility), CLI-86-17, 24 NRC 489, 491 (1986)
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- Shelton v. American Motors Corp.*, 805 F.2d 1323, 1327 (8th Cir. 1986)
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- Shieldalloy Metallurgical Corp.* (Cambridge, Ohio Facility), LBP-99-12, 49 NRC 155, 159 n.4, *aff'd*, CLI-99-12, 49 NRC 347 (1999)
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- Silverman v. Eastrich Multiple Investor Fund, L.P.*, 51 F.3d 28, 31 (3d Cir. 1995)
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- Smith v. United States*, 508 U.S. 223 (1993)
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- Smith v. United States*, 508 U.S. 223, 228 (1993)
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- Southwest Marine, Inc. v. Triple A Machine Shop, Inc.*, 720 F. Supp. 805, 809 (N.D. Cal. 1989)
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- St. Paul Fire & Marine Insurance Co. v. United States*, 24 Cl. Ct. 513 (1991)
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- Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 19 (1998)
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- Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 22 (1998)
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- Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 22 n.1 (1998)
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- Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 455-56 (1981)
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- Steamboaters v. Federal Energy Regulatory Commission*, 759 F.2d 1382 (9th Cir. 1985)
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- Steel Co. v. Citizens for a Better Environment*, 523 U.S. 83, 102-04 (1998)
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- Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 1; Sequoyah Nuclear Plant, Units 1 and 2; Browns Ferry Nuclear Plant, Units 1, 2, and 3), CLI-04-24, 60 NRC 160, 189 (2004)
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- Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 1; Sequoyah Nuclear Plant, Units 1 and 2; Browns Ferry Nuclear Plant, Units 1, 2, and 3), CLI-04-24, 60 NRC 160, 203 (2004)
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- Tesoro Hawaii Corp. v. United States*, 405 F.3d 1339, 1346 (Fed. Cir. 2005)
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- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 1), ALAB-868, 25 NRC 912, 930 (1987)
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- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992)
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- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-1, 35 NRC 1 (1992)
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- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-1, 35 NRC 1, 6 n.5 (1992)
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- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-12, 36 NRC 62, 67 (1992)
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- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-1, 37 NRC 1 (1993)
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- Union of Concerned Scientists v. NRC*, 920 F.2d 50, 55 (D.C. Cir. 1990)
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- Union of Concerned Scientists v. NRC*, 920 F.2d 50, 56 (D.C. Cir. 1990)
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- United States v. All Funds on Deposit in Any Account at Certain Financial Institutions Held in the Names of Certain Individuals*, 767 F. Supp. 36 (E.D.N.Y. 1991)
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- United States v. Christensen*, 419 F.2d 1401, 1403-04 (9th Cir. 1969)
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- United States v. Connor*, 926 F.2d 81, 83 (1st Cir. 1991)
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- United States v. Eight Thousand Eight Hundred and Fifty Dollars in United States Currency*, 461 U.S. 555, 565 (1983)
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- United States v. Geiger Transfer Service*, 174 F.R.D. 382, 385 (S.D. Miss. 1997)
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- United States v. Kordel*, 397 U.S. 1, 11-12 (1970)
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- United States v. Microsoft*, 56 F.3d 1148 (D.C. Cir. 1995)
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- United States v. Philip Morris Inc.*, 209 F.R.D. 13, 17 (D.D.C. 2002)
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- United States v. Rivera-Martinez*, 931 F.2d 148, 150 (1st Cir.), *cert. denied*, 502 U.S. 862 (1991)
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- United States v. Rivera-Martinez*, 931 F.2d 148, 151 (1st Cir.), *cert. denied*, 502 U.S. 862 (1991)
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- United States v. Shaffer Equipment Co.*, 11 F.3d 450, 457-58 (4th Cir. 1993)
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- United States v. Thirteen Machine Guns & One Silencer*, 689 F.2d 861, 864 (9th Cir. 1982)
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- United States v. United States Currency in the Amount of \$228,536.00*, 895 F.2d 908, 917 (2d Cir. 1990)
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- USA Recycling, Inc. v. Town of Babylon*, 66 F.3d 1272, 1295 (2d Cir. 1995)
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- USEC Inc. (American Centrifuge Plant)*, CLI-06-9, 63 NRC 433, 439 (2006)
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- USEC Inc. (American Centrifuge Plant)*, CLI-06-9, 63 NRC 433, 439-40 (2006)
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- Utah v. Evans*, 536 U.S. 452, 468 (2002)
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- Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station)*, ALAB-919, 30 NRC 29, 44 (1989)
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- Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station)*, ALAB-919, 30 NRC 29, 49 (1989), *vacated in part on other grounds*, CLI-90-4, 31 NRC 333 (1990)
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- Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 551 (1978)
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- Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 554-55 (1978)
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- Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2)*, ALAB-363, 4 NRC 631, 633 (1976)
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- Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 56 (1979)
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- Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), LBP-84-40A, 20 NRC 1195, 1199 (1984)
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- Volmar Distributors, Inc. v. New York Post Co.*, 152 F.R.D. 36, 40 (S.D.N.Y. 1993)
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- Von Bulow v. Von Bulow*, 811 F.2d 136, 144 (2d Cir.), *cert. denied*, 481 U.S. 1015 (1987)
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- Walsh Securities, Inc. v. Cristo Property Management*, 7 F. Supp. 2d 523, 526-27 (D.N.J. 1998)
convenience in managing caseload and efficiency in using resources, the interests of nonparties, and the public interest may be considered in determining whether to delay a proceeding; LBP-06-13, 63 NRC 535 n.30 (2006)
- Washington Public Power Supply System* (WPPSS Nuclear Project No. 3), ALAB-747, 18 NRC 1167, 1171 (1983)
under the abuse-of-discretion review standard, appellant must persuade the Commission that a reasonable mind could reach no other result; CLI-06-16, 63 NRC 715 (2006)
- Water Quality Ass'n Employees' Benefit Corp. v. United States*, 795 F.2d 1303, 1307 (7th Cir. 1986)
where possible, a regulation should be construed in a manner that avoids internal inconsistencies; LBP-06-1, 63 NRC 57 (2006)
- Wicker Park Historic District Preservation Fund v. Pierce*, 565 F. Supp. 1066, 1075-76 (N.D. Ill. 1982)
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- Wilderness Watch & Public Employees for Environmental Responsibility v. Mainella*, 375 F.3d 1085, 1096 (11th Cir. 2004)
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- Wilshire Westwood Associates v. Atlantic Richfield Corp.*, 881 F.2d 801, 804 (9th Cir. 1989)
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- Wisconsin Gas Co. v. Federal Energy Regulatory Commission*, 758 F.2d 669, 674 (D.C. Cir. 1985)
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- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 9 (1996)
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- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 249 (1996)
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- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 261 (1996)
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- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998)
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- 10 C.F.R. 2.202(c)(2)(ii)
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- 10 C.F.R. 2.206
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- licensees are ordered to consider the impact of fire barrier degradation on the operability of affected equipment and assess the impact on plant safety, implement appropriate compensatory measures, and develop plans to resolve any noncompliances; DD-06-1, 63 NRC 134-41 (2006)
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- 10 C.F.R. 2.304(c)
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- 10 C.F.R. 2.309
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- 10 C.F.R. 2.309(a)
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- to intervene in a Commission proceeding, a person must file a petition for leave to intervene; CLI-06-9, 63 NRC 436 (2006)
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- 10 C.F.R. 2.309(d)
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- 10 C.F.R. 2.309(d)(2)(ii)
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- 10 C.F.R. 2.309(e)
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- a contention that calls into question the adequacy of the licensee's field sampling plan provides a specific statement of the issue of law or fact to be raised or controverted; LBP-06-6, 63 NRC 183 (2006)
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- for each contention, a petitioner must provide a specific statement of the issue of law or fact to be raised or controverted and a brief explanation of the basis for the contention; LBP-06-10, 63 NRC 337-38 (2006)
- issues raised in contentions must fall within the scope of the proceeding, and reflect a genuine dispute with the applicant or licensee on a material issue of law or fact; CLI-06-10, 63 NRC 456 (2006)
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- whether a licensee should be granted an additional 5 years to submit its decommissioning plan is an issue that is material to the findings the NRC must make; LBP-06-6, 63 NRC 184 (2006)
- 10 C.F.R. 2.309(f)(1)(v)
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- a petitioner is required to provide the analyses and expert opinion showing why its bases support its contention; LBP-06-10, 63 NRC 339-40 (2006)
- a proposed contention that is vague and speculative, and lacks expert opinion, documents, or sources to support it, and that presents nothing more than an unsupported conclusion is inadmissible; CLI-06-6, 63 NRC 164 (2006); LBP-06-7, 63 NRC 208, 209 (2006)
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- a contention asserting that a license application for an irradiator sited at an airport fails to analyze aircraft crash probabilities and consequences presents a genuine dispute on a material issue; LBP-06-12, 63 NRC 420 (2006)
- a contention must identify the disputed portion of the application, and provide supporting reasons for the challenge to the application; CLI-06-10, 63 NRC 456 (2006)
- a newly presented contention based on NRC Staff's solicitation of public input regarding proposed revisions to Staff guidance documents is not admissible because it fails to raise a genuine dispute on a material issue; LBP-06-11, 63 NRC 399 (2006)
- a newly presented contention challenging the adequacy of applicant's corrosion monitoring program for the inaccessible areas above and below the sand bed region is inadmissible because it fails to demonstrate that a genuine dispute exists on a material issue or to specify any faulty portions of the license renewal application; LBP-06-11, 63 NRC 398 (2006)
- issues raised in contentions must fall within the scope of the proceeding, and reflect a genuine dispute with the applicant or licensee on a material issue of law or fact; CLI-06-10, 63 NRC 456 (2006)
- petitioner must read the pertinent portions of the license application, including the safety analysis report and the environmental report, state the applicant's position and the petitioner's opposing view, and explain why it disagrees with the applicant; LBP-06-10, 63 NRC 340 (2006)
- petitioner's dispute of the effectiveness of licensee's technique for locating all possible water conduits is a material issue of fact in a materials license amendment proceeding, which includes references to specific portions of the application, satisfies the contention admissibility requirements; LBP-06-6, 63 NRC 179, 180, 184 (2006)

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- 10 C.F.R. 2.309(f)(2)
- a late-filed contention fails to satisfy the regulatory requirements for admission because the information on which it is based is neither new nor materially different than information that was previously available; LBP-06-11, 63 NRC 397 (2006)
 - allowing a party to freely augment its contentions in its reply would circumvent the requirements for late or amended contentions; LBP-06-12, 63 NRC 405 (2006)
 - for issues arising under NEPA, a petitioner must file contentions based on the applicant's environmental report; CLI-06-9, 63 NRC 444 (2006)
 - if a petitioner believes that the safety analysis report and the environmental report fail to address a particular relevant issue, the petitioner is to explain why the application is deficient; LBP-06-10, 63 NRC 340-41 (2006)
 - if, after the original 60-day *Federal Register* notice period of has expired, previously unavailable information that raises for the first time a material new contention becomes available, and if an existing party asserts that new and material contention in a timely fashion and the contention otherwise satisfies the pleading requirements of section 2.309(f)(1), then that contention is to be admitted, without being required to jump through the eight additional hoops for "nontimely" contentions; LBP-06-14, 63 NRC 574 (2006)
 - new bases for a contention cannot be introduced in a reply brief, or any other time after the date the original contentions are due, unless the petitioner meets the late-filing criteria; CLI-06-17, 63 NRC 732 (2006)
 - NRC Staff's communications that are declarations of programmatic policy or regulatory conclusions that, for example, might be analogized to conclusions in an environmental impact statement, could trigger a petitioner's right to amend or file new contentions; LBP-06-11, 63 NRC 399 (2006)
 - petitioners may file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents; LBP-06-14, 63 NRC 572 n.12 (2006)
 - reply briefs that introduce new issues must address the late-filing factors; LBP-06-10, 63 NRC 329 (2006)
- 10 C.F.R. 2.309(f)(2)(i)-(iii)
- if new and materially different information becomes available during the processing of the application, and a petitioner promptly files a new contention based on this new information, the contention is admissible if it also satisfies the general contention pleading standards; LBP-06-11, 63 NRC 395 (2006); LBP-06-14, 63 NRC 572 (2006)
 - it is neither logical nor sensible to impose only eight conditions on the admissibility of a contention based on old information and where the proponent has, through his own inadvertence, forgotten to raise it, and yet impose even more hurdles on a contention based on new information where the proponent is blameless and prompt; LBP-06-14, 63 NRC 573 n.14 (2006)
- 10 C.F.R. 2.309(f)(2)(ii)
- a late-filed contention fails to satisfy the regulatory requirements for admission because the information on which it is based is neither new nor materially different than information that was previously available; LBP-06-11, 63 NRC 397 (2006)
- 10 C.F.R. 2.309(f)(2)(iii)
- a contention based on information well known to petitioner for approximately 5 months prior to its filing is not timely; LBP-06-14, 63 NRC 579 (2006)
 - no specific number of days whereby a board can measure or determine whether a contention is "timely" is specified; LBP-06-14, 63 NRC 574 (2006)
- 10 C.F.R. 2.309(f)(3)
- excusing a discretionary intervenor from the contention requirement would leave that intervenor free to litigate issues it has not raised, giving that intervenor a participatory role much broader than that of an intervenor as of right, who may litigate only its own contentions or those of another intervenor that it has properly adopted; CLI-06-16, 63 NRC 719 (2006)
- 10 C.F.R. 2.309(h)
- on remand, the portion of the record relevant to the ability to contribute to the development of a sound record is limited to the petition to intervene containing the request for discretionary intervention, and any responsive answers and replies; CLI-06-16, 63 NRC 722 (2006)

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- 10 C.F.R. 2.311
regulations governing appeals from the denial of intervention provide for a notice of appeal with a supporting brief, and for a brief opposing the appeal; CLI-06-9, 63 NRC 439 (2006)
reply briefs on appeals of board decisions denying intervention are not allowed; CLI-06-10, 63 NRC 458 n.41 (2006)
- 10 C.F.R. 2.311(a)
a notice of appeal must be accompanied by a brief; CLI-06-6, 63 NRC 163 (2006)
- 10 C.F.R. 2.311(c)
an applicant has the right to file an interlocutory appeal of board orders admitting contentions, but only if the appeal challenges the admissibility of all admitted contentions; CLI-06-13, 63 NRC 509 n.3 (2006)
- 10 C.F.R. 2.315(c)
an interested state that has not been admitted as a party will be afforded a reasonable opportunity to participate in a hearing; LBP-06-7, 63 NRC 227 n.37 (2006)
- 10 C.F.R. 2.315(d)
denial of a motion for discretionary intervention does not eliminate all possibility of petitioners' participation in the litigation; CLI-06-16, 63 NRC 722 (2006)
- 10 C.F.R. 2.319
a presiding officer has all the powers necessary to promote efficiency and ensure a fair hearing process; LBP-06-16, 63 NRC 744 (2006)
if a party believes that stipulations or admissions would materially expedite or facilitate the proceeding, the party is encouraged to propose such a course to the board directly, and the board will act accordingly; CLI-06-5, 63 NRC 128 n.15 (2006)
- 10 C.F.R. 2.323(a)
given the significant effort involved in identifying new information, assembling the required expertise, and then drafting a contention that satisfies section 2.309(f)(1), it would be inappropriate to impose the very short 10-day rule on the filing of new contentions; LBP-06-14, 63 NRC 574 (2006)
if parties believe that additional time for consultation may be productive, either on a specific dispute or more generally, they are encouraged to advise the board and move for the enlargement of the 10-day time frame; LBP-06-3, 63 NRC 92 n.12 (2006)
motions must be filed no more than 10 days after the occurrence or circumstance from which the motion arises; CLI-06-2, 63 NRC 18 n.36 (2006); LBP-06-10, 63 NRC 333 (2006)
- 10 C.F.R. 2.323(b)
although a summary disposition movant has no right to reply to an answer to its motion, the movant could have requested the opportunity to respond and to correct the record if the opponent's allegation was plainly and factually incorrect; CLI-06-5, 63 NRC 123 n.10 (2006)
motions include a certification by the attorney or representative of the moving party that the movant has made a sincere effort to contact the other parties in the proceeding and resolve the issues raised in the motion; CLI-06-5, 63 NRC 128 (2006); CLI-06-10, 63 NRC 454 n.8 (2006)
motions must state with particularity the grounds and the relief sought, be accompanied by any affidavits or other evidence relied on, and, as appropriate, a proposed form of order; CLI-06-10, 63 NRC 454 n.8 (2006)
petitioner must consult with other parties prior to filing a motion; CLI-06-9, 63 NRC 439 (2006)
prior to filing a summary disposition motion, movant must make a sincere effort to resolve the issues raised in the motion; CLI-06-5, 63 NRC 120, 122, 128, 129 (2006)
- 10 C.F.R. 2.323(d)
all parties are obligated, in their filings, to ensure that their arguments are supported by legal authority; LBP-06-7, 63 NRC 202 n.9 (2006)
- 10 C.F.R. 2.323(f)
a ruling admitting a contention that raised a novel legal or policy question regarding the status of depleted uranium as low-level waste is referred to the Commission; LBP-06-15, 63 NRC 605 (2006)
- 10 C.F.R. 2.325
Staff has the burden of proof to demonstrate the adequacy of the final environmental impact statement; LBP-06-8, 63 NRC 250 (2006)
the party supporting abeyance of a proceeding carries the burden of proof and must make at least some showing of potential detrimental effect on the pending criminal case; CLI-06-12, 63 NRC 502 (2006)

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- the proponent of summary disposition bears the burden of demonstrating that there is no genuine issue as to any material fact; CLI-06-5, 63 NRC 121 (2006)
- 10 C.F.R. 2.326
until a license issues, the Commission must entertain motions to reopen the adjudicatory record, albeit under NRC's strict regulatory standards; CLI-06-3, 63 NRC 24 (2005)
- 10 C.F.R. 2.326(a)
a motion to reopen that does not satisfy the pleading requirements is denied; CLI-06-4, 63 NRC 37, 38 (2006)
the threshold for reopening a closed record is high; CLI-06-3, 63 NRC 22 (2005)
- 10 C.F.R. 2.326(b)
a motion to reopen must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the pleading requirements have been satisfied; CLI-06-4, 63 NRC 37 (2006)
if a party seeks to reopen a closed record and, in the process raises an issue that was not an admitted contention in the initial proceeding, it must demonstrate that raising this issue satisfies the requirements for a nontimely or late-filed contention; CLI-06-4, 63 NRC 37, 38 (2006)
- 10 C.F.R. 2.332(d)
adjudicatory hearings are generally postponed for many months or even years while the board waits for the NRC Staff to issue the final safety evaluation report and the final environmental impact statement; LBP-06-14, 63 NRC 573 (2006)
- 10 C.F.R. 2.335
a contention is not an impermissible challenge to agency regulations merely because the applicant and the Staff believe the regulations have been satisfied; LBP-06-12, 63 NRC 405-06 (2006)
contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications; LBP-06-1, 63 NRC 59-60 (2006); LBP-06-4, 63 NRC 108 (2006)
petitioners may seek a waiver of the application of the waste classification rule; LBP-06-8, 63 NRC 267 (2006)
- 10 C.F.R. 2.335(b)
any person may file a request for waiver of a regulation; LBP-06-10, 63 NRC 360 (2006)
- 10 C.F.R. 2.336
because the sole contention in the proceeding is moot, the mandatory disclosure process for that contention is terminated; LBP-06-16, 63 NRC 745 (2006)
- 10 C.F.R. 2.336(a)
disclosure of trial experts is required within 30 days of the issuance of the order granting a request for hearing or petition to intervene; LBP-06-10, 63 NRC 372 n.17 (2006)
- 10 C.F.R. 2.336(b)
a motion to compel NRC Staff to produce documents that the Staff withheld from disclosure is denied because the documents qualify for the deliberative process privilege and no showing was made that petitioner's immediate need for these documents outweighs the privilege; LBP-06-3, 63 NRC 88 (2006)
- 10 C.F.R. 2.336(b)(5)
when Staff has withheld documents, which it asserts are privileged or protected, , if the opponent's allegation was plainly and factually incorrect, these "otherwise discoverable documents" are listed on privilege logs; LBP-06-3, 63 NRC 88 (2006)
- 10 C.F.R. 2.338
NRC has a longstanding policy of encouraging the fair and reasonable settlement of contested licensing proceedings; LBP-06-18, 63 NRC 835 (2006)
there are agreements on lesser matters (e.g., scope of a contention, resolution of evidentiary objections, withdrawal of a particular argument) that do not rise to the level of settlement agreements; LBP-06-18, 63 NRC 839 n.17 (2006)
this new provision added in 2004 consolidates and amplifies the previous rules pertaining to settlement; LBP-06-18, 63 NRC 835 (2006)
- 10 C.F.R. 2.338(a)
parties may either submit a proposed settlement to the board or submit a request for alternative dispute resolution to the board; LBP-06-18, 63 NRC 836, 839 (2006)

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- 10 C.F.R. 2.338(b)
although a mechanism for the use of alternative dispute resolution is provided, the regulation is not restricted to the subject of alternative dispute resolution; LBP-06-18, 63 NRC 839 (2006)
parties are allowed to request, by joint motion, the appointment of a settlement judge to conduct settlement negotiations or to refer the proceeding to alternative dispute resolution; LBP-06-18, 63 NRC 836 n.13 (2006)
- 10 C.F.R. 2.338(c)-(i)
nothing in the language or regulatory history of this regulation suggests that its application is limited to settlement agreements reached via a settlement judge or alternative dispute resolution; LBP-06-18, 63 NRC 839 (2006)
- 10 C.F.R. 2.338(e)
a board is authorized to impose additional requirements as part of a settlement; LBP-06-18, 63 NRC 836 (2006)
- 10 C.F.R. 2.338(g)
although a party's submission does not use the exact phrases suggested in the regulation, the requirements are satisfied because the submission constitutes a written agreement between the parties that was submitted for the board's imprimatur; LBP-06-18, 63 NRC 841-42 (2006)
certain form requirements are mandated for a settlement agreement; LBP-06-18, 63 NRC 836 (2006)
- 10 C.F.R. 2.338(h)
certain content requirements are mandated for a settlement agreement; LBP-06-18, 63 NRC 836 (2006)
requirements are satisfied by a memorandum of understanding addendum that concedes that the board has jurisdiction over the parties and over the subject matter of the addendum and waives all further procedural steps before the board, all rights to challenge or contest the validity of the board's order, and all rights to seek judicial review or otherwise contest the validity of the order; LBP-06-18, 63 NRC 842 (2006)
- 10 C.F.R. 2.338(i)
no particular process is specified for boards to use in determining whether to allow the adjudication of a contention contesting whether a settlement is required in the public interest; LBP-06-18, 63 NRC 837 (2006)
the presiding officer may order the adjudication of the issues if it is required in the public interest; LBP-06-18, 63 NRC 837 (2006)
where a hearing request was granted, but no actual notice of hearing was issued, the board approves of the settlement agreement; LBP-06-2, 63 NRC 81 n.1 (2006)
- 10 C.F.R. 2.340(a)
a board may examine an issue *sua sponte* only where the Commission approves such examination and decision upon referral of the question to the Commission; LBP-06-18, 63 NRC 840 (2006)
corrective redrafting of a discretionary intervention petitioner's contention is tantamount to raising a new issue *sua sponte* without the required prior permission from the Commission; CLI-06-16, 63 NRC 721 (2006)
matters not put into controversy by the parties will be examined and decided by the presiding officer only where he or she determines that a serious safety, environmental, or common defense and security matter exists, and the Commission approves such an examination and decision upon referral of the question by the presiding officer; LBP-06-18, 63 NRC 843 (2006)
the bar against corrective redrafting is particularly compelling in the context of a request for discretionary intervention because a board rewrite of contentions undermines the very basis for granting discretionary intervention, i.e., the Petitioner's demonstrated ability to contribute to the record; CLI-06-16, 63 NRC 721 (2006)
- 10 C.F.R. 2.341(b)(4)
this procedural rule applies to cases docketed after February 13, 2004, and is substantially equivalent to former section 2.786; CLI-06-1, 63 NRC 3 n.5 (2006)
- 10 C.F.R. 2.341(b)(4)(i), (ii)
board factual findings that are not clearly erroneous or its legal conclusions that are not contrary to law will not be overturned; CLI-06-15, 63 NRC 690 (2006)

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- 10 C.F.R. 2.341(b)(4)(iii), (v)
the Commission grants review because of concern that the board (and the underlying final environmental impact statement) may not have fully explored potential long-term effects from disposal of depleted uranium, whose radiological hazard gradually increases over time; CLI-06-15, 63 NRC 690 (2006)
- 10 C.F.R. 2.341(f)(2)
for purpose of interlocutory review, a board decision is "pervasive" and "unusual" when it stops the entire proceeding in its tracks; CLI-06-12, 63 NRC 500 (2006)
interlocutory review is allowed if the challenged board decision threatens immediate and serious irreparable impact or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-06-12, 63 NRC 500 (2006)
where regulations do not provide a right to appeal an interlocutory order, the Commission treats an "appeal" as a petition for interlocutory review; CLI-06-12, 63 NRC 500 (2006)
- 10 C.F.R. 2.342(e)
to obtain a stay, a party must meet the standards of likelihood of success on the merits, irreparable harm, absence of harm to others, and the public interest; CLI-06-8, 63 NRC 237 (2006)
- 10 C.F.R. 2.346(h)
on the basis of an attorney's previous disregard of the NRC's practices and procedures, the Commission may order the Office of the Secretary to screen all filings bearing the offender's signature and not to accept or docket them unless they meet all procedural requirements; CLI-06-4, 63 NRC 39 (2006)
- 10 C.F.R. 2.390(b)(6)
documents withheld from general public inspection may still be made available under protective order, as appropriate, to persons directly concerned; CLI-06-10, 63 NRC 461 (2006)
- 10 C.F.R. 2.390(d)(1)
certain information may be withheld from public disclosure, including, for example, trade secrets and other confidential financial information, or information that concerns an applicant's physical protection, classified matter protection, or material control and accounting program that is otherwise not designated as Safeguards Information or classified as National Security Information or Restricted Data; CLI-06-10, 63 NRC 459 (2006)
- 10 C.F.R. 2.702(a)
a non-expert witness who was identified as the source of information but who had been removed from applicant's witness list could have been subjected to discovery and compelled to provide testimony before the board; LBP-06-15, 63 NRC 662 (2006)
- 10 C.F.R. 2.706
Federal Rules of Criminal Procedure do not automatically provide for discovery using interrogatories and depositions, but NRC rules do; CLI-06-12, 63 NRC 502 n.22 (2006)
- 10 C.F.R. 2.706(a)
a non-expert witness who was identified as the source of information but who had been removed from applicant's witness list could have been subjected to discovery and compelled to provide testimony before the board; LBP-06-15, 63 NRC 662 (2006)
- 10 C.F.R. 2.710
the standard governing the grant of summary disposition is described; LBP-06-9, 63 NRC 307 (2006)
- 10 C.F.R. 2.710(a)-(b)
an opponent of a motion for summary disposition must respond to each of the "material facts" listed by the movant, admitting or denying each of them, and must set forth specific facts, by affidavit or otherwise, showing that there are genuine issues of fact; CLI-06-5, 63 NRC 128 n.15 (2006)
- 10 C.F.R. 2.710(b)
if the proponent of summary disposition has satisfied its initial burden, the party opposing the motion may not rest upon mere allegations or denials, but must submit rebutting evidence setting forth specific facts showing that there is a genuine issue of fact to be tried; CLI-06-5, 63 NRC 122 (2006)
- 10 C.F.R. 2.710(d)(2)
proponents of summary disposition motions must show that there are no genuine issues of material fact in dispute; CLI-06-5, 63 NRC 121, 122, 124 (2006)
summary disposition is proper if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there

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- is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law; CLI-06-5, 63 NRC 121 (2006)
- 10 C.F.R. 2.714(a)(3)
prior to adoption of the Part 2 revision in February 2004, petitioners were allowed to amend and supplement their petitions within certain time periods as a matter of right in NRC adjudicatory proceedings; LBP-06-10, 63 NRC 354 n.156 (2006)
- 10 C.F.R. 2.714(b)(1)
prior to adoption of the Part 2 revision in February 2004, petitioners were not required to file any contentions until after they had filed a petition for leave to intervene and after the licensing board had scheduled a prehearing conference; LBP-06-10, 63 NRC 354 n.156 (2006)
- 10 C.F.R. 2.734
until a license issues, the Commission must entertain motions to reopen the adjudicatory record, albeit under NRC's strict regulatory standards; CLI-06-3, 63 NRC 24 (2005)
- 10 C.F.R. 2.734(a)
the threshold for reopening a closed record is high; CLI-06-3, 63 NRC 22 (2005)
to reopen a closed record, new information must raise a significant environmental or safety issue and a materially different result must be likely as a result of the new evidence; CLI-06-3, 63 NRC 25 (2005)
- 10 C.F.R. 2.749(a), (d)
summary disposition may be entered with respect to any matter (or all of the matters) in a proceeding if the motion, along with any appropriate supporting material, shows that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law; LBP-06-9, 63 NRC 307 (2006)
- 10 C.F.R. 2.759
the Commission recognizes that the public interest may be served through settlement of particular issues in a proceeding or the entire proceeding; LBP-06-18, 63 NRC 836 n.13 (2006)
- 10 C.F.R. 2.786
this procedural rule still applies to cases docketed prior to February 13, 2004; CLI-06-1, 63 NRC 3 n.5 (2006)
- 10 C.F.R. 2.786(b)
a party wishing to challenge a partial initial decision before the Commission must file a petition for review within 15 days after service of the decision; LBP-06-1, 63 NRC 79 (2006)
- 10 C.F.R. 2.786(b)(1)
the Commission has discretion to grant a petition for review, giving due weight to the existence of a substantial question with respect to any of the five grounds; CLI-06-11, 63 NRC 485 (2006)
the filing of a petition for review is mandatory for a party seeking to exhaust its administrative remedies before seeking judicial review; LBP-06-1, 63 NRC 79 (2006)
- 10 C.F.R. 2.786(b)(3)
any other party to a proceeding may, within 10 days after service of a petition for review, file an answer supporting or opposing Commission review; LBP-06-1, 63 NRC 79 (2006)
- 10 C.F.R. 2.786(b)(4)
the Commission's denial of review is not a decision on the merits, but simply indicates that the appealing party identified no clearly erroneous factual finding or important legal error requiring Commission correction; LBP-06-1, 63 NRC 59 n.15 (2006)
where intervenors have not identified any clearly erroneous factual finding or significant legal error, plenary review is not warranted; CLI-06-1, 63 NRC 3 (2006)
- 10 C.F.R. 2.786(b)(4)(ii)
a presiding officer's ruling that is without governing precedent is appropriate for review; CLI-06-7, 63 NRC 166 (2006)
- 10 C.F.R. 2.786(b)(4)(iii)
when a substantial and important question of law is presented, Commission review is appropriate; CLI-06-7, 63 NRC 166 (2006)
- 10 C.F.R. 2.802
if a petitioner wishes to challenge, or raise concerns about, a facility's emergency preparedness program relating to spent fuel accidents, it may petition for rulemaking; LBP-06-7, 63 NRC 202 n.9 (2006)

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- to the extent that intervenors disagree with a regulation, their recourse is to petition the Commission for rulemaking to change it; LBP-06-1, 63 NRC 60 (2006)
- 10 C.F.R. 2.1001
- “basic licensing documents” are not automatically considered “documentary material,” although some may qualify as such if they meet the definition of any of the three classes of documentary material; CLI-06-5, 63 NRC 153 (2006)
- “circulated drafts” are nonfinal documents circulated for supervisory concurrence or signature in which the original author or others in the concurrence process have nonconcurred; CLI-06-5, 63 NRC 147 (2006)
- Class 3 documentary material must be “reports and studies” that are relevant to the issues listed in the Topical Guidelines, and the reports and studies must be relevant to the license application; CLI-06-5, 63 NRC 153 (2006)
- “documentary material” includes three classes of information; CLI-06-5, 63 NRC 146 (2006)
- if the Commission had intended to require all drafts of Class 3 material to be available on the Licensing Support Network, there would be no “circulated draft” subset, and “circulated draft” certainly would not have merited a separate definition; CLI-06-5, 63 NRC 156 (2006)
- it is within the framework of an exception to the general rule on the submission of final documents that the definition of circulated draft is properly examined; CLI-06-5, 63 NRC 158 (2006)
- the Licensing Support Network is the combined system that makes documentary material available electronically to parties, potential parties, and interested governmental participants to a proceeding for a construction authorization for a high-level radioactive waste repository at a geologic repository operations area; CLI-06-5, 63 NRC 145 n.2 (2006)
- the organizational unit within the NRC selected to be the LSN Administrator shall not be considered to be a party to the proceeding; CLI-06-5, 63 NRC 145 n.2 (2006)
- “Topical Guidelines” means the set of topics set forth in Regulatory Guide 3.69, which are intended to serve as guidance on the scope of ‘documentary material; CLI-06-5, 63 NRC 147 n.12 (2006)
- 10 C.F.R. 2.1003
- participants must make their documentary materials available in accordance with the schedule and requirements set out in this regulation; CLI-06-5, 63 NRC 147 (2006)
- the purpose of this regulation is to define the availability of material, not to provide definitions of types of materials; CLI-06-5, 63 NRC 153 (2006)
- 10 C.F.R. 2.1003(a)
- DOE must make its documentary material available at least 6 months prior to the date on which DOE files its license application; CLI-06-5, 63 NRC 147 (2006)
- 10 C.F.R. 2.1003(b)
- responsibility for placing certain items, including the license application, on the Licensing Support Network is spelled out; CLI-06-5, 63 NRC 147 (2006)
- responsibility is assigned for the placement of certain items on the Licensing Support Network, but this is not the same as classifying all such items as documentary material; CLI-06-5, 63 NRC 153 (2006)
- the license application is not a Class 3 report or study, although the final application ultimately must be made available on the Licensing Support Network as a basic licensing document; CLI-06-5, 63 NRC 157 (2006)
- 10 C.F.R. 2.1009(b)
- each participant, starting with DOE, must certify to the completeness of the documentary material it has placed on the Licensing Support Network; CLI-06-5, 63 NRC 147 (2006)
- 10 C.F.R. 2.1202(a)
- NRC is expressly authorized to grant license amendments, and to make them immediately effective, in advance of the holding and completion of any required hearing, as long as the NRC determines that the amendment involves no significant hazards consideration; CLI-06-8, 63 NRC 238 (2006)
- Staff action on a licensing application is effective upon issuance, except in the case of power reactor license amendments, where there are significant hazards considerations; CLI-06-8, 63 NRC 237 (2006)
- Staff is to issue its approval or denial of an application promptly once it completes its own review of the application, notwithstanding the pendency of any hearing; CLI-06-8, 63 NRC 237 (2006)

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- 10 C.F.R. 2.1203
because the sole contention in the proceeding is moot, the mandatory disclosure process for that contention is terminated; LBP-06-16, 63 NRC 745 (2006)
- 10 C.F.R. 2.1205(c)
proponents of summary disposition motions must show that there are no genuine issues of material fact in dispute; CLI-06-5, 63 NRC 119, 121, 122, 124 (2006)
- 10 C.F.R. 2.1205(h)
determination of admissibility of “areas of concern” based upon a standard of “germaneness” was revised in 2004 in favor of the stricter contention pleading requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi); LBP-06-12, 63 NRC 406 (2006)
- 10 C.F.R. 2.1241
settlement in an informal proceeding must be approved by the presiding officer or the Commission as appropriate, in order to be binding in the proceeding; LBP-06-18, 63 NRC 836 n.13 (2006)
- 10 C.F.R. 2.1251(a)
if no party files a petition for review of a partial initial decision, and if the Commission does not *sua sponte* review it, the decision will constitute the final action of the Commission 30 days after its issuance; LBP-06-1, 63 NRC 79 (2006)
- 10 C.F.R. 2.1253
a party wishing to challenge a partial initial decision before the Commission must file a petition for review within 15 days after service of the decision; LBP-06-1, 63 NRC 79 (2006)
the filing of a petition for review is mandatory for a party seeking to exhaust its administrative remedies before seeking judicial review; LBP-06-1, 63 NRC 79 (2006)
- 10 C.F.R. 2.1316
NRC Staff is not a party in license transfer cases; CLI-06-2, 63 NRC 12 (2006)
- 10 C.F.R. Part 20
NRC expanded its definition of “background radiation,” to include various anthropogenic sources as well as NORM, and to expressly exclude NRC-regulated sources; CLI-06-14, 63 NRC 517 (2006)
- 10 C.F.R. 20.1003
all source and byproduct materials, whether regulated by the Commission or not, should be excluded from background radiation and hence included in the total effective dose equivalent calculation; LBP-06-1, 63 NRC 51 (2006)
background radiation does not include radiation from source, byproduct, or special nuclear materials regulated by the Commission; CLI-06-14, 63 NRC 517 (2006)
“background radiation” is radiation from cosmic sources, naturally occurring radioactive material, including radon (except as a decay product of source or special nuclear material), and global fallout from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under the control of the licensee; LBP-06-1, 63 NRC 66, 69 n.28 (2006)
because surface spoilage is not byproduct material, its radiological emissions need not be excluded from background radiation; LBP-06-1, 63 NRC 65 (2006)
because the regulatory words “source, byproduct, [and] special nuclear materials” are followed by a clause that is applicable as much to the first and other words as to the last, the natural construction of the language demands that the clause be read as applicable to all; LBP-06-1, 63 NRC 58 (2006)
“byproduct material” is defined as the tailings or wastes produced by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content; LBP-06-1, 63 NRC 64 (2006)
radiation from surface spoilage is not excluded from background radiation; LBP-06-1, 63 NRC 54, 55, 58 n.14, 63, 69 (2006)
source material includes ores containing uranium or thorium in concentrations that the Commission determines to be significant; CLI-06-14, 63 NRC 517 n.38 (2006)
“source material” is defined as uranium or thorium or any combination of the two in any physical or chemical form, or ores that contain, by weight, 0.05%, or more, of uranium, thorium, or any combination of uranium and thorium; LBP-06-1, 63 NRC 62 (2006)
special nuclear material includes plutonium, uranium-233, and enriched uranium; LBP-06-1, 63 NRC 56 n.12 (2006)

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- surface spoilage is TENORM that emits background radiation, which is excluded from the TEDE calculation; LBP-06-1, 63 NRC 69 (2006)
- surface spoilage that contains uranium in any physical falls within the first definitional category of source material; LBP-06-1, 63 NRC 62 (2006)
- the definition of "background radiation" does not require that radiation from surface spoil be excluded from background radiation; CLI-06-7, 63 NRC 165 (2006)
- "total effective dose equivalent" is defined as the sum of the deep-dose equivalent (for external exposures) and the committed effective dose equivalent for internal exposures; LBP-06-1, 63 NRC 50 n.4 (2006)
- 10 C.F.R. 20.1301(a)(1)
- annual radiation exposure to the general public from in situ uranium mining operations must not exceed 0.1 rem; LBP-06-1, 63 NRC 46, 51, 55-56, 65 (2006)
- each licensee must conduct operations so that a member of the public does not receive a dose exceeding 0.1 rem in a year exclusive of the dose contributions from background radiation; CLI-06-14, 63 NRC 512 (2006)
- natural surface soils containing trace amounts of uranium and/or thorium constitute background radiation that is excluded from the total effective dose equivalent calculation; LBP-06-1, 63 NRC 53, 59, 69 (2006)
- radiological air emissions caused by in situ leach mining operations should be included in the total effective dose equivalent calculation because they constitute a radiological emission from the licensed operation; LBP-06-1, 63 NRC 53 (2006)
- surface spoilage is naturally occurring radioactive material whose emissions are background radiation that are excluded from the total effective dose equivalent calculation; LBP-06-1, 63 NRC 54, 68 (2006)
- the total effective dose equivalent calculation is tied to radiation from licensed operations, and it expressly excludes preexisting background radiation; CLI-06-14, 63 NRC 516 (2006); LBP-06-1, 63 NRC 50, 53, 54, 56 (2006)
- 10 C.F.R. 30.33(a)(2)
- the lack of a regulatory prohibition against siting an irradiator at an airport does not affirmatively establish that any airport location satisfies the general requirement that an irradiator facility be adequate to protect health and minimize danger to life or property; LBP-06-12, 63 NRC 419 (2006)
- 10 C.F.R. 30.35
- applicant has the burden of proof to demonstrate the adequacy of its license application; LBP-06-15, 63 NRC 602 (2006)
- applicants for a license to possess and use byproduct material and source material in excess of certain quantities must submit a proposed decommissioning funding plan with the license application; LBP-06-15, 63 NRC 623 n.21 (2006)
- to fulfill the financial assurance/decommissioning funding plan requirements and relevant guidance in NUREG-1757, agency licensing of an enrichment facility should be based on the cost estimates that would be applicable under the plausible strategy associated with the U.S. Department of Energy providing dispositioning services; LBP-06-15, 63 NRC 603 (2006)
- 10 C.F.R. 36.13(c)
- in the license application, an outline is required that describes the operating and emergency procedures in broad terms that specifically state the radiation safety aspects of the procedures rather than to require the complete operating and emergency procedures; LBP-06-12, 63 NRC 414, 415 n.54 (2006)
- 10 C.F.R. 36.37
- licensees must have and follow emergency or abnormal event procedures, appropriate for the irradiator type, for a prolonged loss of electrical power; LBP-06-12, 63 NRC 414 (2006)
- 10 C.F.R. 36.39
- the regulatory history of the design requirements discusses a lack of siting prohibitions for a different kind of irradiator sited near airports and within tidal wave risk areas; LBP-06-4, 63 NRC 111 (2006)
- 10 C.F.R. 36.39(c)
- a design-based challenge involving a postulated cask drop on a sealed source is within the scope of, and material to, an irradiator licensing proceeding; LBP-06-12, 63 NRC 408 (2006)

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- 10 C.F.R. 36.53(b)(6)
a contention asserting that applicant's irradiator license application fails to describe the emergency procedures for a prolonged loss of electricity is admissible; LBP-06-12, 63 NRC 413-14 (2006)
- 10 C.F.R. 36.53(b)(9)
licensees must have and follow emergency procedures for natural phenomena, including flooding, or other phenomena as appropriate for the geographical location of the facility; LBP-06-12, 63 NRC 417, 418 (2006)
- 10 C.F.R. 36.67(c)
licensees must have and follow emergency or abnormal event procedures, appropriate for the irradiator type, for a prolonged loss of electrical power; LBP-06-12, 63 NRC 414 (2006)
- 10 C.F.R. 40.4
"byproduct material" is defined as the tailings or wastes produced by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content; LBP-06-1, 63 NRC 64 (2006)
"source material" is defined as uranium or thorium or any combination of the two in any physical or chemical form, or ores that contain, by weight, 0.05%, or more, of uranium, thorium, or any combination of uranium and thorium; LBP-06-1, 63 NRC 62 (2006)
surface spoilage that contains uranium in any physical form falls within the first definitional category of source material; LBP-06-1, 63 NRC 62 (2006)
"unrefined and unprocessed ore" is defined as ore in its natural form prior to any processing, such as grinding, roasting or beneficiating, or refining; CLI-06-14, 63 NRC 512 (2006); LBP-06-1, 63 NRC 55 n.10, 62 (2006)
- 10 C.F.R. 40.13
licensing is unnecessary for unimportant quantities of source material; LBP-06-1, 63 NRC 62 (2006)
- 10 C.F.R. 40.13(a)
a license is not required for the possession of ore in which the source material is less than 0.05% of the ore by weight; LBP-06-1, 63 NRC 62 (2006)
- 10 C.F.R. 40.13(b)
a person is exempt from Part 40 licensing requirements to the extent that such person receives, possesses, uses, or transfers unrefined and unprocessed ore containing source material; LBP-06-1, 63 NRC 62 (2006)
licensee's bare ownership of land containing radioactive mine spoil is not part of its NRC-licensed operation, and because licensee did not bring the material to the surface, it is not required to have an NRC license to possess source material in the form of unprocessed ore (so long as it does not process that ore); CLI-06-14, 63 NRC 516 (2006)
mining spoil is not regulated by the Commission because Part 40 regulations exempt from regulations unimportant quantities of source material and because the spoil is unrefined and unprocessed ore; CLI-06-14, 63 NRC 518 (2006)
"unrefined and unprocessed ore" is defined as ore in its natural form prior to any processing, such as grinding, roasting or beneficiating, or refining; LBP-06-1, 63 NRC 62 (2006)
- 10 C.F.R. 40.36
applicant has the burden of proof to demonstrate the adequacy of its license application; LBP-06-15, 63 NRC 602 (2006)
applicants for a license to possess and use byproduct material and source material in excess of certain quantities must submit a proposed decommissioning funding plan with the license application; LBP-06-15, 63 NRC 623 n.21 (2006)
to fulfill the financial assurance/decommissioning funding plan requirements and relevant guidance in NUREG-1757, agency licensing of an enrichment facility should be based on the cost estimates that would be applicable under the plausible strategy associated with the U.S. Department of Energy providing dispositioning services; LBP-06-15, 63 NRC 603 (2006)
- 10 C.F.R. 40.36(e)(5)
when a government entity is assuming custody and ownership of a site, the method for providing financial assurance for decommissioning is an arrangement that is deemed acceptable by such governmental entity; LBP-06-6, 63 NRC 179 (2006)

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- 10 C.F.R. 40.42(d)
decommissioning plans must be submitted to the NRC within 12 months of notifying the NRC that the license has expired, licensee has decided to permanently cease principal activities at the site, or no principal activities under the license have been conducted for 24 months at the site or in any separate building or outdoor area that contains residual radioactivity; LBP-06-6, 63 NRC 167-68 (2006)
under certain conditions, the Commission may approve an alternative schedule for the submittal of a decommissioning plan; LBP-06-6, 63 NRC 168 (2006)
- 10 C.F.R. 40.42(g)(1)
licensees are required to submit decommissioning plans to the NRC if required by license condition or if the procedures and activities necessary to carry out decommissioning have not been previously approved by the Commission and these procedures could increase potential health and safety impacts to workers or to the public; LBP-06-6, 63 NRC 167 (2006)
- 10 C.F.R. 40.42(g)(2)
in a request for an alternative schedule for submittal of a decommissioning plan, licensee is not required to provide new cost estimates for either site characterization activities or eventual decommissioning; LBP-06-6, 63 NRC 181 (2006)
to be granted, a request for an alternative schedule for submittal of a decommissioning plan must satisfy three criteria; LBP-06-6, 63 NRC 167, 168, 172, 176, 180, 181, 182 n.21, 183-84 (2006)
to be granted, a request for an alternative schedule for submittal of a decommissioning plan must present no undue risk from radiation to the public health and safety; LBP-06-6, 63 NRC 180 (2006)
- 10 C.F.R. 40.42(h)(1)
licensees are required to complete decommissioning of the site as soon as practicable but no later than 24 months following the initiation of decommissioning except where the Commission approves a request for an alternative schedule; LBP-06-6, 63 NRC 175 n.11 (2006)
- 10 C.F.R. 40.42(i)
the Commission may approve an alternative schedule for completion of decommissioning; LBP-06-6, 63 NRC 175 (2006)
- 10 C.F.R. 50.5
making material false statements in a matter within the NRC's jurisdiction is a violation; CLI-06-16, 63 NRC 714 (2006)
- 10 C.F.R. 50.5(a)(2)
deliberately submitting information to NRC that applicant's employee knows is incomplete and inaccurate in some material respect material is a violation; LBP-06-13, 63 NRC 532 (2006)
- 10 C.F.R. 50.12
if nonconforming conditions are identified, licensees of plants licensed to operate before January 1, 1979, may request an exemption from fire protection requirements of Part 50, Appendix R; DD-06-1, 63 NRC 139 (2006)
- 10 C.F.R. 50.48
because of questions about the ability of 1-hour- and 3-hour-rated Thermo-Lag fire barrier material, NRC requests that licensees implement appropriate compensatory measures and develop plans to resolve any noncompliances; DD-06-1, 63 NRC 137 (2006)
fire protection systems must include features to limit fire damage to structures, systems, or components important to safety so that the capability to shut down the NPP safely is ensured; DD-06-1, 63 NRC 138, 139 (2006)
- 10 C.F.R. 50.51(a)
each original license will be issued for a fixed period of time to be specified in the license but in no case to exceed 40 years from date of issuance; LBP-06-10, 63 NRC 342 n.102 (2006)
- 10 C.F.R. 50.54(f)
responses to NRC's requests for information about structural integrity of the reactor pressure vessel head penetration nozzles are required to be signed under oath or affirmation, to enable the Commission to determine whether or not the license should be modified, suspended, or revoked; LBP-06-13, 63 NRC 531 (2006)
- 10 C.F.R. 50.55a
for operating plants, licensees are permitted to use the original construction code during the operational phase or voluntarily update to a later version; LBP-06-7, 63 NRC 205-06 (2006)

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- 10 C.F.R. 50.55a(c)(1)
components of the reactor coolant pressure boundary for boiling water-cooled nuclear power facilities must meet the requirements for Class 1 components in section III of the current ASME Code; LBP-06-7, 63 NRC 205 (2006)
- 10 C.F.R. 50.55a(c)(4)
a contention that attacks licensee's use of a cumulative usage factor for evaluating the metal fatigue of reactor coolant pressure boundary components during the license renewal period is inadmissible; LBP-06-7, 63 NRC 204 (2006)
for operating plants whose construction permits were issued prior to May 14, 1984, the applicable ASME Code requirements are those for such components at the time of issuance of the construction permit; LBP-06-7, 63 NRC 205 (2006)
- 10 C.F.R. 50.55a(g)(4)
the Commission expresses approval of Appendix L of ASME Code for demonstrating that a component is acceptable with regard to cumulative fatigue effects; LBP-06-7, 63 NRC 206 (2006)
- 10 C.F.R. 50.58(b)(6)
NRC is expressly authorized to grant license amendments, and to make them immediately effective, in advance of the holding and completion of any required hearing, as long as the NRC determines that the amendment involves no significant hazards consideration; CLI-06-8, 63 NRC 238 (2006)
- 10 C.F.R. 50.61
licensees are required to calculate the effects of neutron flux on the reactor vessel materials, and to project the time at which embrittlement of the reactor vessel will exceed a conservative screening criterion; CLI-06-17, 63 NRC 731 (2006)
- 10 C.F.R. 50.61(a)(2)
a pressurized thermal shock event is an event or transient in pressurized water reactors causing severe overcooling (thermal shock) concurrent with or followed by significant pressure in the reactor vessel; CLI-06-17, 63 NRC 731 (2006); LBP-06-10, 63 NRC 348 (2006)
- 10 C.F.R. 50.61(a)(3)-(7)
a "pressurized thermal shock screening criterion" is the value of a reference temperature for the vessel beltline material above which the plant cannot continue to operate without justification; LBP-06-10, 63 NRC 348 n.130 (2006)
- 10 C.F.R. 50.61(a)(8)
a "pressurized thermal shock event" is an event or transient in pressurized water reactors causing severe overcooling concurrent with or followed by significant pressure in the reactor vessel; LBP-06-10, 63 NRC 348 (2006)
- 10 C.F.R. 50.61(b)
the pressurized thermal shock rule applies to pressurized water reactors throughout their operating life and requires plants to project the course that embrittlement will take over the reactor's operating life; LBP-06-10, 63 NRC 348 n.144 (2006)
- 10 C.F.R. 50.61(b)(2)
screening criteria have been established to ensure that embrittlement does not progress to the extent that it represents a safety hazard; LBP-06-10, 63 NRC 348 (2006)
- 10 C.F.R. 50.61(b)(3)
flux reduction programs are the preferred method to avoid exceeding the pressurized thermal shock criterion, because such programs slow the progress of the embrittlement process itself; LBP-06-10, 63 NRC 348 n.144 (2006)
licensees must implement a neutron flux reduction program to avoid exceeding the screening criterion; CLI-06-17, 63 NRC 731 (2006)
- 10 C.F.R. 50.61(b)(4)
a licensee is required to submit a safety analysis to determine what, if any, modifications to equipment, systems, and operations are necessary to prevent potential failure of the reactor vessel as a result of postulated pressurized thermal shock events if continued operation beyond the screening criterion is allowed; LBP-06-10, 63 NRC 348 n.144 (2006)
if no practicable flux reduction can prevent the reactor vessel from exceeding the criterion, the licensee must conduct an analysis to identify how it must modify equipment, systems, and operations to prevent failure of the reactor vessel in a thermal shock event; CLI-06-17, 63 NRC 731 (2006)

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- 10 C.F.R. 50.61(b)(4)-(6)
if the reactor vessel is projected to exceed the screening criterion, the burden is on the licensee to demonstrate that it is safe for the plant to continue to operate; CLI-06-17, 63 NRC 731 (2006)
- 10 C.F.R. 50.61(b)(5)
NRC evaluates the reactor pressure vessel safety analysis and decides, on a case-by-case basis, whether to permit continued operation once the screening threshold has been reached; LBP-06-10, 63 NRC 348 n.144 (2006)
- 10 C.F.R. 50.61(b)(7)
if no practicable flux reduction can prevent the reactor vessel from exceeding the criterion, the licensee may anneal the reactor pressure vessel to restore ductility; CLI-06-17, 63 NRC 731 (2006); LBP-06-10, 63 NRC 348 n.144 (2006)
- 10 C.F.R. 50.61(c)
methods and equations that a licensee must use to make these embrittlement projections are based on the neutron flux, or number of neutrons passing through the material per unit of time per unit area, to which the reactor vessel materials are subject; LBP-06-10, 63 NRC 348 n.144 (2006)
- 10 C.F.R. 50.63
although licensee's alternative source of AC power is owned, operated, and maintained by another company, licensee is obliged to ensure that combustion turbines are operational throughout the period of extended operation; LBP-06-7, 63 NRC 210 n.18 (2006)
licensee must have an alternative source of alternating current power for a facility in the event of a station blackout; LBP-06-7, 63 NRC 207 (2006)
- 10 C.F.R. 50.90
plants licensed to operate after January 1, 1979, may make changes to their approved fire protection program without prior NRC Staff approval if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire; DD-06-1, 63 NRC 140 (2006)
plants that adopt a risk-informed approach to changes in their fire protection systems should submit a license amendment; DD-06-1, 63 NRC 140 (2006)
- 10 C.F.R. 50.92
NRC is expressly authorized to grant license amendments, and to make them immediately effective, in advance of the holding and completion of any required hearing, as long as the NRC determines that the amendment involves no significant hazards consideration; CLI-06-8, 63 NRC 238 (2006)
- 10 C.F.R. Part 50, Appendix A, GDC 3
structures, systems, and components important to safety must be designed and located to minimize the probability and effect of fires and explosions; DD-06-1, 63 NRC 138 (2006)
- 10 C.F.R. Part 50, Appendix R
if nonconforming conditions are identified, licensees of plants licensed to operate before January 1, 1979, may request an exemption from fire protection requirements; DD-06-1, 63 NRC 139 (2006)
licensees of plants licensed to operate before January 1, 1979, must comply with fire protection requirements specified in this regulation; DD-06-1, 63 NRC 139 (2006)
- 10 C.F.R. Part 51
a license applicant is required to describe and the Staff is required to consider the potential environmental effects of the proposed agency action; LBP-06-8, 63 NRC 258 (2006)
- 10 C.F.R. 51.22(b)
a special-circumstances exception for actions is provided in which a blanket finding is made by rule that the licensing action does not have a significant effect on the human environment; LBP-06-4, 63 NRC 108 (2006)
any interested person has the right to challenge the use of a categorical exclusion by presenting special circumstances; LBP-06-4, 63 NRC 109 n.38 (2006)
petitioner's speculative claim concerning the possible health effects of irradiating papayas and mangos does not rise to the level of special circumstances necessary to invoke the exception for the categorical exclusion of irradiators; LBP-06-4, 63 NRC 114 (2006)
Staff need not prepare an EA or an EIS for any action categorically excluded except in special circumstances; LBP-06-4, 63 NRC 107 (2006)

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- the regulatory history of the special circumstances exception to the categorical exclusions indicates that the location of an irradiator may be a circumstance in which the exclusion might not apply; LBP-06-4, 63 NRC 110 (2006)
- the "special circumstances" provision has no relevance to claims unrelated to the Commission's environmental regulations; LBP-06-12, 63 NRC 407 (2006)
- 10 C.F.R. 51.22(c)
license transfers, like irradiators, are categorically excluded from NEPA review; LBP-06-4, 63 NRC 107 (2006)
- 10 C.F.R. 51.22(c)(14)(vii)
irradiators are exempted from the category of actions for which an environmental assessment or an environmental impact statement must be prepared; LBP-06-4, 63 NRC 106, 109 n.38 (2006)
the regulatory history of the categorical exclusion of irradiators merely provides a brief description of an irradiator and states that personnel exposures during use of these devices are less than 5% of the limits in 10 C.F.R. Part 20; LBP-06-4, 63 NRC 110 (2006)
- 10 C.F.R. 51.23(a)
spent fuel generated in any reactor can be stored onsite safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation; LBP-06-7, 63 NRC 202 n.9 (2006)
- 10 C.F.R. 51.41
NRC Staff independently evaluates and is responsible for the reliability of any information that it uses in complying with its NEPA obligations; CLI-06-10, 63 NRC 474 (2006)
- 10 C.F.R. 51.45
there is no basis for providing an EIS description to such a level of detail that it can be duplicated by members of the public, so as to permit an individual to run applicable computer codes or make other detailed computations; LBP-06-9, 63 NRC 302, 305 (2006)
- 10 C.F.R. 51.45(b)
an environmental report shall contain a description of the environment affected; CLI-06-9, 63 NRC 440 (2006)
- 10 C.F.R. 51.45(b)(1)
in an environmental report, impacts on the environment must be discussed in proportion to their significance, but a discussion or evaluation of unaffected areas or sites is not required whether or not they are historic; CLI-06-9, 63 NRC 440 (2006)
- 10 C.F.R. 51.53(c)
a license renewal applicant must submit with its application an environmental report, which must contain a description of the proposed action, including the applicant's plans to modify the facility or its administrative control procedures as described in accordance with section 54.21; LBP-06-10, 63 NRC 344 (2006)
- 10 C.F.R. 51.53(c)(2)
a license renewal applicant must describe in detail the modifications directly affecting the environment or affecting plant effluents that affect the environment; LBP-06-10, 63 NRC 345 (2006)
- 10 C.F.R. 51.53(c)(3)(i)
an environmental report for a license renewal is not required to contain analyses of environmental impacts identified as "Category 1," or "generic," issues in Appendix B to Subpart A of Part 51; LBP-06-10, 63 NRC 345 (2006)
license renewal applicants may in their site-specific environmental reports refer to and adopt the generic environmental impact findings found in Table B-1, Appendix B for all Category 1 issues; LBP-06-10, 63 NRC 345 (2006)
the Commission has determined that a number of environmental issues that might otherwise be relevant to license renewal shall be resolved generically for all plants, and such issues, classified as "Category 1" issues, are normally beyond the scope of a license renewal hearing; LBP-06-7, 63 NRC 199 (2006)
- 10 C.F.R. 51.53(c)(3)(ii)
an environmental report for a license renewal must contain analyses of the environmental impacts of the proposed action, including the impacts of refurbishment activities, if any, associated with license renewal and the impacts of operation during the renewal term, for issues identified as "Category 2," or "plant specific," issues in Part 51, Subpart A, Appendix B; LBP-06-10, 63 NRC 345 (2006)

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- “Category 2” issues are issues for which an applicant must make a plant-specific analysis of environmental impacts in its environmental report; LBP-06-7, 63 NRC 199 (2006)
- 10 C.F.R. 51.53(c)(3)(ii)(L)
a license renewal application must provide an analysis of severe accident mitigation alternatives; LBP-06-7, 63 NRC 199 (2006)
- 10 C.F.R. 51.70(b)
in its environmental review, Staff need not replicate the work completed by another entity, but rather must independently review and find relevant and scientifically reasonable any outside reports or analyses on which it intends to rely; LBP-06-8, 63 NRC 259 (2006)
- 10 C.F.R. 51.71
there is no basis for providing an EIS description to such a level of detail that it can be duplicated by members of the public, so as to permit an individual to run applicable computer codes or make other detailed computations; LBP-06-9, 63 NRC 302, 305 (2006)
- 10 C.F.R. 51.95(c)
“Category 2” issues are issues for which NRC Staff must prepare a supplemental environmental impact statement; LBP-06-7, 63 NRC 199 (2006)
- 10 C.F.R. 51.102(a)
as a part of its environmental review, Staff prepare a record of decision to accompany any Commission decision on any action for which a final environmental impact statement has been prepared; LBP-06-8, 63 NRC 259 (2006)
- 10 C.F.R. 51.102(b), (c)
Staff prepares the record of decision on an action, but when a hearing is held on the proposed action, the licensing board’s initial decision on that action constitutes the record of decision; LBP-06-8, 63 NRC 260 (2006)
- 10 C.F.R. 51.102(c)
the record of decision may incorporate by reference any material contained in the relevant final environmental impact statement; LBP-06-8, 63 NRC 260 (2006)
- 10 C.F.R. 51.103
requirements for the “record of decision” relating to any license renewal application are described; LBP-06-10, 63 NRC 346 (2006)
- 10 C.F.R. 51.104
Staff has the burden of proof to demonstrate the adequacy of the final environmental impact statement; LBP-06-8, 63 NRC 250 (2006)
- 10 C.F.R. Part 51, Subpart A, App. A, § 4
Staff’s draft and final environmental impact statements are to include a statement that will briefly describe and specify the need for the proposed action; LBP-06-17, 63 NRC 813 (2006)
- 10 C.F.R. Part 51, Subpart A, App. A, § (7)(b)
under NEPA standards and NRC environmental regulations, it is appropriate to consider the reasonably foreseeable environmental impacts of a proposed action, even if they are only indirect effects; CLI-06-15, 63 NRC 690 (2006)
- 10 C.F.R. Part 51, Subpart A, Appendix B
applicants must provide a plant-specific review of all the Category 2 environmental issues; LBP-06-10, 63 NRC 345 (2006)
Category 1 issues are those issues that the Commission has categorized and assessed generically because the environmental effects of those issues are essentially similar for all plants; CLI-06-17, 63 NRC 734 n.29 (2006); LBP-06-10, 63 NRC 345 (2006)
societal and economic impacts from severe accidents have been deemed small for all plants and such issues cannot be raised in a license renewal proceeding absent a waiver; LBP-06-10, 63 NRC 365 (2006)
the expected increase in the volume of spent fuel from an additional 20 years of operation can be safely accommodated onsite with small environmental effects through dry or pool storage at all plants if a permanent repository or monitored retrievable storage is not available; LBP-06-7, 63 NRC 202 (2006)

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- 10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1
a contention that a license renewal for a nuclear plant will result in excessive radioactive and toxic chemical contamination of the local drinking water may be viewed as a Category 1 issue; LBP-06-10, 63 NRC 357 (2006)
- 10 C.F.R. 52.102
adjudicatory findings on NEPA issues become part of the environmental record of decision and in effect supplement the final environmental impact statement; CLI-06-15, 63 NRC 707 n.91 (2006)
discussion in the final environmental impact statement regarding the impacts of disposal of depleted uranium at a near-surface disposal facility is supplemented by the board's decision, along with the underlying adjudicatory record supporting that decision; LBP-06-8, 63 NRC 287 (2006)
- 10 C.F.R. Part 54
renewal applicants must demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation; CLI-06-17, 63 NRC 733-34 (2006)
- 10 C.F.R. 54.3
"current licensing basis" is a term of art comprehending the various Commission requirements applicable to a specific plant that are in effect at the time of the license renewal application; LBP-06-10, 63 NRC 344 (2006)
- 10 C.F.R. 54.3(a)
"current licensing basis" is defined as the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect; LBP-06-7, 63 NRC 198 (2006); LBP-06-16, 63 NRC 741 n.5 (2006)
- 10 C.F.R. 54.21(a)
although licensee's alternative source of AC power is owned, operated, and maintained by another company, license is obliged to ensure that the effects of aging on the combustion turbines are adequately managed; LBP-06-7, 63 NRC 210 n.18 (2006)
- 10 C.F.R. 54.21(b)
changes to a facility's current licensing basis during the license renewal review process are expressly permitted by Commission regulations; LBP-06-7, 63 NRC 207 n.14 (2006)
- 10 C.F.R. 54.21(c)(1)
petitioners may address time-limited aging analyses such as neutron embrittlement of the reactor pressure vessel by demonstrating that existing analyses remain valid for the period of extended operation, revising existing analyses to demonstrate their validity to the end of the period of extended operation, or demonstrating that the effects of aging on the intended function(s) will be adequately managed for the period of extended operation; LBP-06-10, 63 NRC 347 (2006)
- 10 C.F.R. 54.31(b)
the scope of license renewal proceedings generally concern requests to renew 40-year licenses for additional 20-year terms; LBP-06-10, 63 NRC 342 (2006)
- 10 C.F.R. 55.35
applicant is exempted from the 6-month waiting period required for a third application for a reactor operator license, contingent upon participation in a licensed operator requalification training program; LBP-06-2, 63 NRC 83 (2006)
- 10 C.F.R. Part 61
whether applicant may appropriately dispose of its depleted uranium at a specific near-surface facility will depend on whether the performance objectives governing near-surface disposal (or comparable state regulations) can be met at that facility; CLI-06-15, 63 NRC 690 (2006)
- 10 C.F.R. 61.2
a "land disposal facility" effectively includes any land, building and structures, and equipment that are intended to be used for the disposal of radioactive wastes, but does not include geologic repository disposal; LBP-06-8, 63 NRC 263 (2006)
an inadvertent "intruder" is someone who might occupy a waste disposal site after site closure and engage in activities such as agriculture, dwelling, or construction, in which the person may unknowingly come into contact with the waste; CLI-06-15, 63 NRC 694 n.35 (2006)

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- 10 C.F.R. 61.7(a)
burial deeper than 30 meters may also be satisfactory for near-surface disposal provided that the disposal methods meet the specific technical requirements for near-surface disposal; LBP-06-8, 63 NRC 264 n.18 (2006)
near-surface disposal includes disposal in engineered facilities that may be built totally or partially above-grade, provided that such facilities have protective earthen covers; LBP-06-8, 63 NRC 264 n.18 (2006)
near-surface methods of disposal may involve disposal at depths down to approximately 30 meters, although burial at a depth greater than 30 meters may also be acceptable; CLI-06-15, 63 NRC 689 n.5 (2006)
- 10 C.F.R. 61.41
dose limits for releases of radioactivity to members of the general public are not applicable to inadvertent intruders; CLI-06-15, 63 NRC 696 n.47 (2006)
Subpart C performance objectives must be met regardless of the classification of the waste involved, and are specifically intended to protect the general public from releases of radioactivity; LBP-06-8, 63 NRC 264 (2006)
the performance objectives for a near-surface disposal facility require that the relevant licensing entity examine whether, at any particular time after active institutional controls are removed, the dose limitations will be met for an inadvertent intruder; LBP-06-8, 63 NRC 281 (2006)
- 10 C.F.R. 61.42
dose limits for protection of inadvertent intruders are not specified; CLI-06-15, 63 NRC 696 n.47 (2006)
dose limits must be met without time limitation; LBP-06-8, 63 NRC 284 (2006)
Subpart C performance objectives must protect individuals from inadvertent intrusion at any time after active institutional controls over a disposal site are removed; LBP-06-8, 63 NRC 264 (2006)
- 10 C.F.R. 61.43
Subpart C performance objectives must protect individuals from radiation exposures during operation of a facility; LBP-06-8, 63 NRC 264 (2006)
- 10 C.F.R. 61.44
Subpart C performance objectives must ensure the long-term stability of a disposal site after closure; LBP-06-8, 63 NRC 264 (2006)
- 10 C.F.R. 61.50(a)
a primary purpose of the Part 61, Subpart D technical requirements is to ensure that the Subpart C performance objectives for a land disposal facility are met; LBP-06-8, 63 NRC 264 (2006)
the minimum characteristics to be satisfied by low-level radioactive waste land disposal facilities to make it acceptable for use as a near-surface disposal facility are discussed; LBP-06-8, 63 NRC 264 (2006)
- 10 C.F.R. 61.52(a)(2)
intruder barriers must be designed to protect against an inadvertent intrusion for at least 500 years; LBP-06-8, 63 NRC 284 (2006)
- 10 C.F.R. 61.55(a)
depleted uranium is appropriately categorized as low-level waste and is deemed Class A waste; LBP-06-8, 63 NRC 267 (2006); LBP-06-15, 63 NRC 665 (2006)
- 10 C.F.R. 61.55(a)(2)(i)-(iii)
Class A, B, and C wastes are generally appropriate for near-surface disposal; LBP-06-8, 63 NRC 264 (2006)
- 10 C.F.R. 61.55(a)(2)(iv)
wastes having a greater radioactivity than Class C (greater-than-Class-C waste) typically are not appropriate for near-surface disposal; LBP-06-8, 63 NRC 264 (2006)
- 10 C.F.R. 61.55(a)(3)-(5), Tables 1 & 2
wastes are classified on the basis of the long-lived and/or short-lived radionuclides present in the waste; LBP-06-8, 63 NRC 264 (2006)
- 10 C.F.R. 61.55(a)(6)
a literal reading of the regulation renders depleted uranium "Class A" low-level radioactive waste; CLI-06-15, 63 NRC 699 (2006)
if a particular radioactive waste does not contain any of the radionuclides listed in Tables 1 and 2, it is, by default, designated Class A waste; LBP-06-8, 63 NRC 264 (2006)

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- no exception is made for depleted uranium from enrichment facilities; LBP-06-8, 63 NRC 267 (2006)
should the Commission make a determination in the course of a rulemaking proceeding that this section or other portions of Part 61 need revision to address the impacts resulting from the waste stream from uranium enrichment facilities, such a determination may well require that licenses for near-surface disposal facilities be evaluated in light of any new requirements; LBP-06-8, 63 NRC 286-87 (2006)
- 10 C.F.R. 61.58
anticipating that new waste streams or disposal methods might become relevant in the future, the drafters of Part 61 left flexibility to deal with such occurrences; LBP-06-8, 63 NRC 275 (2006)
- 10 C.F.R. 63.21(a)
a license application consists of two parts, one of which is the Safety Analysis Report; CLI-06-5, 63 NRC 156 (2006)
- 10 C.F.R. 70.4
“decommissioning” a facility means to remove it safely from service and reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of the license or release of the property under restricted conditions and termination of the license; LBP-06-15, 63 NRC 602 n.2 (2006)
under the double contingency principle, process designs should incorporate sufficient factors of safety to require at least two unlikely, independent, and concurrent changes in process conditions before a criticality accident is possible; LBP-06-17, 63 NRC 791 (2006)
- 10 C.F.R. 70.22(a)(9)
an applicant seeking a license to construct and operate a uranium enrichment facility must submit with its license application a proposed decommissioning funding plan; LBP-06-15, 63 NRC 623 (2006)
- 10 C.F.R. 70.23a
before a uranium enrichment facility can be licensed, a hearing must be held; LBP-06-17, 63 NRC 762 (2006)
- 10 C.F.R. 70.25
applicant has the burden of proof to demonstrate the adequacy of its license application; LBP-06-15, 63 NRC 602 (2006)
to fulfill the financial assurance/decommissioning funding plan requirements and relevant guidance in NUREG-1757, agency licensing of an enrichment facility should be based on the cost estimates that would be applicable under the plausible strategy associated with the U.S. Department of Energy providing dispositioning services; LBP-06-15, 63 NRC 603 (2006)
- 10 C.F.R. 70.25(a)
an applicant seeking a license to construct and operate a uranium enrichment facility must submit a proposed decommissioning funding plan with its license application; LBP-06-15, 63 NRC 623 (2006); LBP-06-17, 63 NRC 779 (2006)
- 10 C.F.R. 70.25(e)
a decommissioning funding plan must contain a cost estimate for decommissioning and a description of the method of assuring funds for decommissioning, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility; LBP-06-15, 63 NRC 623 (2006)
a surety bond must be funded in an amount greater than or equal to the decommissioning cost estimate set forth in the licensee’s decommissioning funding plan; LBP-06-17, 63 NRC 781 (2006)
applicant must adjust its cost estimates and associated financial assurance levels for decommissioning at least once every 3 years; LBP-06-15, 63 NRC 623 (2006); LBP-06-17, 63 NRC 780 (2006)
applicant must submit a certification with its decommissioning funding plan that financial assurance for decommissioning the facility has been provided in an amount equal to the decommissioning cost estimate, as well as a signed original or appropriate duplicate of the funding instrument whereby the applicant will provide financial assurance; LBP-06-15, 63 NRC 623 (2006)
the triennial adjustment is intended to account only for minor decommissioning cost estimate modifications; LBP-06-15, 63 NRC 676 (2006)
- 10 C.F.R. 70.25(f)(1)-(3)
financial assurance may be provided for decommissioning in the case of a private applicant by prepayment into a segregated account prior to start of facility operations, a surety or other guarantee method, or by annual deposits into an external sinking fund coupled with a surety method whereby the

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- surety value decreases over time by the amount accrued in the sinking fund; LBP-06-15, 63 NRC 623 (2006); LBP-06-17, 63 NRC 780 (2006)
- 10 C.F.R. 70.25(f)(2)(i)
surety bonds must either be open-ended or written for a specified term subject to automatic renewal, and must specify that the full face value will be automatically paid to the NRC prior to expiration if the licensee does not provide an acceptable replacement mechanism within a specified period of time; LBP-06-17, 63 NRC 781 n.24 (2006)
- 10 C.F.R. 70.25(f)(2)(ii)
a surety bond must be directly payable to an acceptable standby trust that will be used to fund decommissioning if the licensee defaults on its decommissioning obligation; LBP-06-17, 63 NRC 781 n.24 (2006)
- 10 C.F.R. 70.25(f)(2)(iii)
a surety bond must remain in effect until license termination; LBP-06-17, 63 NRC 781 n.24 (2006)
- 10 C.F.R. 70.31(e)
before a uranium enrichment facility can be licensed, a hearing must be held; LBP-06-17, 63 NRC 762 (2006)
- 10 C.F.R. 70.60
for authorization to possess greater than a critical mass of special nuclear material, and engage in uranium enrichment, an applicant must comply with certain performance requirements regarding nuclear criticality safety; LBP-06-17, 63 NRC 791 (2006)
- 10 C.F.R. 70.61
an applicant must identify and assess all credible accident sequences and identify appropriate mitigation measures, commonly referred to as items relied on for safety, to prevent or mitigate the consequences of such accidents; LBP-06-17, 63 NRC 792 (2006)
Staff guidance documents, though not legally binding, provide further information about the relationship between the various subsections of this regulation; LBP-06-17, 63 NRC 791 (2006)
- 10 C.F.R. 70.61(a)
applicant must evaluate, in its integrated safety assessment, its compliance with performance requirements set forth in section 70.61(b) through (d); LBP-06-17, 63 NRC 791 (2006)
- 10 C.F.R. 70.61(b)
applicant must limit, through the application of engineered and/or administrative controls, the risk of credible high-consequence events so as to make them highly unlikely, or to make their consequences less severe than certain established dose and exposure limits; LBP-06-17, 63 NRC 791 (2006)
in theory, a facility operator could have an inadvertent criticality, but still be in compliance with the dose limits; LBP-06-17, 63 NRC 792 (2006)
- 10 C.F.R. 70.61(c)
applicant must limit the risk posed by each credible intermediate-consequence event so as to make the event unlikely or its consequences less severe than regulatory dose and exposure limits; LBP-06-17, 63 NRC 791 (2006)
in theory, a facility operator could have an inadvertent criticality, but still be in compliance with the dose limits; LBP-06-17, 63 NRC 792 (2006)
- 10 C.F.R. 70.61(d)
risks of criticality accidents must be limited by assuring that all nuclear processes are subcritical under normal and credible abnormal conditions, including the use of an approved margin of subcriticality, and preventive measures must be the primary means of protection against criticality accidents; LBP-06-17, 63 NRC 791 (2006)
the purpose of this section is to ensure that all nuclear processes are designed to remain subcritical under normal and credible abnormal conditions; LBP-06-17, 63 NRC 792 (2006)
- 10 C.F.R. 70.61(e)
each engineered or administrative control/control system necessary to comply with paragraphs (b) through (d) must be designated an item relied on for safety; LBP-06-17, 63 NRC 791 (2006)
- 10 C.F.R. 70.64(a)(9)
design of new facilities must provide for criticality control including adherence to the double contingency principle; LBP-06-17, 63 NRC 791 (2006)

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- 10 C.F.R. 70.65(b)(4)
applicant must provide documentation of its compliance with the performance requirements of section 70.61 in its integrated safety analysis summary; LBP-06-17, 63 NRC 791 (2006)
Staff guidance documents, though not legally binding, provide further information about the content of the integrated safety analysis summary and how an applicant can comply with this section; LBP-06-17, 63 NRC 792 (2006)
- 10 C.F.R. 73.1(a)(1)(i)
the design basis threat for which a facility must have appropriate security measures includes a violent external assault, attack by stealth, or deceptive actions, of several persons who are well trained, possess explosives and sophisticated weapons, and utilize a four-wheel-drive vehicle; LBP-06-7, 63 NRC 203 (2006)
- 10 C.F.R. 74.7
NRC may grant exemptions that will not threaten the common defense and security, or endanger life or property, and that are otherwise in the public interest; CLI-06-10, 63 NRC 471 (2006)
- 28 C.F.R. 50.7
the U.S. Department of Justice allows 30 days for public comment prior to the settlement of most environmental enforcement cases; LBP-06-18, 63 NRC 837 (2006)
- 36 C.F.R. 800.3(b)
an agency may use information developed for NEPA reviews to satisfy the requirements of the NHPA section 106 process; CLI-06-9, 63 NRC 437-38 (2006)
an agency should coordinate the National Historic Preservation Act section 106 process with the overall planning schedule for the undertaking and with any reviews required under other authorities such as the National Environmental Policy Act; CLI-06-9, 63 NRC 437 (2006)
the procedures set forth for an agency official may be implemented by the official in a flexible manner reflecting differing program requirements, as long as the purposes of National Historic Preservation Act section 106 and the regulations are met; CLI-06-11, 63 NRC 488 n.25 (2006)
- 36 C.F.R. 800.3(c)
an agency official should establish a schedule for completing the National Historic Preservation Act section 106 process that is consistent with the planning and approval schedule for the undertaking; CLI-06-11, 63 NRC 488 n.25 (2006)
- 36 C.F.R. 800.4(b)(2)
this section is intended to provide federal agencies with flexibility when several alternatives are under consideration and the nature of the undertaking and its potential scope and effect have therefore not yet been completely defined; CLI-06-11, 63 NRC 489 n.32 (2006)
- 36 C.F.R. 800.4(d)(1)
this subsection applies when an agency official finds that no historic properties are affected by the project; CLI-06-9, 63 NRC 440 n.38 (2006)
- 36 C.F.R. 800.4(d)(2)
this subsection applies when an agency official finds that historic properties may be affected by the project; CLI-06-9, 63 NRC 440 (2006)
- 36 C.F.R. 800.5(a)(1)
an adverse effect is a required precondition to the consideration of alternatives under the National Historic Preservation Act; CLI-06-9, 63 NRC 449 (2006)
an undertaking has an adverse effect if it may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register; CLI-06-9, 63 NRC 437 (2006)
- 36 C.F.R. 800.5(d)(2), 800.6
an adverse effect is a required precondition to the consideration of alternatives under the National Environmental Policy Act; CLI-06-9, 63 NRC 449 (2006)
- 36 C.F.R. 800.8(c)
if its process meets certain conditions, an agency may use the National Environmental Policy Act process in lieu of the procedures set forth in 36 C.F.R. 800.3-.6 to satisfy the section 800.6 requirements; CLI-06-9, 63 NRC 438 (2006)
- 36 C.F.R. 800.16(y)
a project requiring a federal license is defined as an "undertaking"; CLI-06-9, 63 NRC 437 (2006)

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40 C.F.R. 192.01(m)

“tailings” are defined as the remaining portion of a metal-bearing ore after some or all of such metal, such as uranium, has been extracted; LBP-06-1, 63 NRC 64 n.20 (2006)

40 C.F.R. 1502.16, 1508.8

an agency environmental impact statement must address both direct and indirect, or secondary, effects of an action; LBP-06-8, 63 NRC 259 (2006)

40 C.F.R. 1508.8

direct effects are those caused by the federal action, and occurring at the same time and place as that action, whereas indirect effects are caused by the action at a later time or more distant place, yet still are reasonably foreseeable; LBP-06-8, 63 NRC 259 (2006)

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- 18 U.S.C. § 207(a)(1)(B)
any former federal employee is prohibited from attempting to influence any action relating to any matter in which the person participated while an employee; LBP-06-10, 63 NRC 372 n.16 (2006)
- Anti-Deficiency Act, 31 U.S.C. § 1341(a)(1)(A), (B) (2000)
an officer or employee of the United States Government is prohibited from making or authorizing an expenditure or obligation exceeding an amount available in a current appropriation, and may not involve the government in a contract or obligation for the payment of money before an appropriation is made; LBP-06-6, 63 NRC 178 (2006)
- Atomic Energy Act, 42 U.S.C. § 2012(d)
processing and utilization of source material must be regulated in the national interest and in order to provide for the common defense and security and to protect the health and safety of the public; LBP-06-1, 63 NRC 61 (2006)
- Atomic Energy Act, 42 U.S.C. § 2014(e)
“byproduct material” is defined as any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material, or the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content; LBP-06-1, 63 NRC 63 (2006)
- Atomic Energy Act, 3z, 42 U.S.C. § 2014z
“source material” is defined as uranium, thorium, or any other material that is determined by the Commission pursuant to the provisions of AEA section 61 to be source material, or ores containing one or more of the foregoing materials, in such concentration as the Commission may by regulation determine from time to time; CLI-06-14, 63 NRC 517 n.38 (2006); LBP-06-1, 63 NRC 61 (2006)
- Atomic Energy Act, 42 U.S.C. § 2014(aa)
special nuclear material includes plutonium, uranium-233, and enriched uranium; LBP-06-1, 63 NRC 56 n.12 (2006)
- Atomic Energy Act, 62, 42 U.S.C. § 2092
an NRC license is required to transfer or receive in interstate commerce any source material (such as uranium ore) only after removal from its place of deposit in nature; CLI-06-14, 63 NRC 512 (2006)
NRC authority over uranium ore and other source material attaches only after removal from its place of deposit in nature, and not when the ore is mined; CLI-06-14, 63 NRC 512 (2006)
- Atomic Energy Act, 161b, 42 U.S.C. § 2201b
NRC has general authority to impose reasonable restrictions on licenses to protect public health and safety and common defense and security; CLI-06-3, 63 NRC 30 (2005)
- Atomic Energy Act, 189, 42 U.S.C. § 2239
any change to a plant’s licensing basis that requires a license amendment, i.e., a change in the technical specifications, will offer an opportunity for hearing; LBP-06-10, 63 NRC 389 (2006)
intervenor do not have a right to an adjudicatory hearing on future determinations that may be made under license conditions; CLI-06-1, 63 NRC 4 (2006)
- Atomic Energy Act, 189a, 42 U.S.C. § 2239(a)(1)(A)
NRC must provide a hearing upon the request of any person whose interest may be affected by the proceeding; LBP-06-4, 63 NRC 103 (2006); LBP-06-7, 63 NRC 194 (2006); LBP-06-10, 63 NRC 327 (2006)

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- Atomic Energy Act, 189a(2)(A), 42 U.S.C. § 2239a(2)(A)
NRC is expressly authorized to grant license amendments, and to make them immediately effective, in advance of the holding and completion of any required hearing, as long as the NRC determines that the amendment involves no significant hazards consideration; CLI-06-8, 63 NRC 238 (2006)
- Atomic Energy Act, 193(b)(1), 42 U.S.C. § 2243(b)(1)
the Commission must conduct a single hearing on the record with regard to the licensing of the construction and operation of a uranium enrichment facility; LBP-06-17, 63 NRC 762 (2006)
- Atomic Energy Act, 274, 42 U.S.C. § 2021(b)
agreement states have the authority, for the duration of the agreement, to regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards; LBP-06-8, 63 NRC 260 (2006)
NRC is authorized to enter into agreements with the Governor of any State in which the NRC relinquishes certain regulatory authority over particular radioactive materials, and the disposal of such materials, to the state; CLI-06-15, 63 NRC 691 n.13 (2006); LBP-06-8, 63 NRC 260 (2006)
once the Commission and a state enter into an agreement, the Agreement State assumes all active regulatory authority with regard to the specified activities; LBP-06-8, 63 NRC 261 (2006)
- Atomic Energy Act, 274, 42 U.S.C. § 2021(d)
before it can be authorized to participate in the Agreement State program, a state pursuing agreement state status must pass legislation establishing the authority for that state to conduct a radiation control program, and must further assume and implement that authority through the promulgation of state regulations; LBP-06-8, 63 NRC 260 (2006)
- Atomic Energy Act, 274, 42 U.S.C. §§ 2021(d)(1)
an agreement state must demonstrate its willingness to assume regulatory responsibility for the materials covered by the proposed agreement under a regulatory regime that is equivalent to or more stringent than 10 C.F.R. Part 61; CLI-06-15, 63 NRC 691 n.13 (2006); LBP-06-8, 63 NRC 260 (2006)
- Atomic Energy Act, 274, 42 U.S.C. § 2021(d)(2)
before it enters into an agreement with any state, the Commission must find the state radiation control program compatible in certain respects with that of the NRC and adequate to protect the public health and safety with respect to the materials covered by the proposed agreement; LBP-06-8, 63 NRC 261 (2006)
- Atomic Energy Act, 274, 42 U.S.C. § 2021(j)
in its oversight role, NRC periodically reviews state radiation control programs to confirm that they remain compatible with the Commission's programs and adequately protect public health and safety; CLI-06-15, 63 NRC 699-700 (2006); LBP-06-8, 63 NRC 261 (2006)
NRC retains the power to terminate or suspend an agreement with any state under certain circumstances if it determines that such action is required to ensure public health and safety; CLI-06-15, 63 NRC 700 (2006); LBP-06-8, 63 NRC 261 (2006)
- Atomic Energy Act, 42 U.S.C. § 2021(l) (2000)
an interested state that has not been admitted as a party will be afforded a reasonable opportunity to participate in a hearing; LBP-06-7, 63 NRC 227 n.37 (2006)
- Atomic Energy Act, 274, 42 U.S.C. § 2021(o)
before it can be authorized to participate in the Agreement State program, a state pursuing agreement state status must pass legislation establishing the authority for that state to conduct a radiation control program, and must further assume and implement that authority through the promulgation of state regulations; LBP-06-8, 63 NRC 260 (2006)
- Atomic Energy Act, 274, 42 U.S.C. §§ 2021(o)(2)
an agreement state must demonstrate its willingness to assume regulatory responsibility for the materials covered by the proposed agreement under a regulatory regime that is equivalent to or more stringent than 10 C.F.R. Part 61; CLI-06-15, 63 NRC 691 n.13 (2006); LBP-06-8, 63 NRC 260 (2006)
- Atomic Energy Act, 42 U.S.C. § 2092
a license is not required for quantities of source material which, in the opinion of the Commission, are unimportant; LBP-06-1, 63 NRC 62 (2006)
- Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9622(i)(1)
public notice and comment are required for administrative settlements; LBP-06-18, 63 NRC 837 n.16 (2006)

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- Exec. Order No. 12,898
the essence of an environmental justice claim arising under NEPA in an NRC proceeding is disproportionately high and adverse human health and environmental effects on minority and low-income populations that may be different from the impacts on the general population; LBP-06-10, 63 NRC 364 (2006)
- N.M. Stat. § 69-36-3.H
New Mexico's laws address the process of obtaining useful minerals from the earth, with the exception of the extraction, processing, or disposal of commodities, byproduct materials or wastes, or other activities regulated by the NRC; CLI-06-14, 63 NRC 513 (2006)
- National Environmental Policy Act, 42 U.S.C. §§ 4321 *et seq.*
a license applicant is required to describe and the Staff is required to consider the potential environmental effects of the proposed agency action; LBP-06-8, 63 NRC 258 (2006)
- National Environmental Policy Act, 102(2)
a license renewal application must provide an analysis of severe accident mitigation alternatives; LBP-06-7, 63 NRC 199 (2006)
- National Environmental Policy Act, 102(2)(A), 42 U.S.C. § 4332(2)(A)
all federal agencies must apply a systematic, interdisciplinary approach that will ensure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking that may have an impact on the human environment; LBP-06-17, 63 NRC 826 n.55 (2006)
- National Environmental Policy Act, 102(2)(C), 42 U.S.C. § 4332(2)(C)
agencies must consult with and obtain the comments of any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved; LBP-06-17, 63 NRC 826 (2006)
in their environmental impact statements, federal agencies must address the environmental impact, any unavoidable adverse impacts, alternatives to the proposed action, the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources that might result from the proposed action; LBP-06-17, 63 NRC 826 (2006)
- National Environmental Policy Act, 102(2)(E), 42 U.S.C. § 4332(2)(E)
federal agencies must study, develop, and describe appropriate alternatives to the recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; LBP-06-17, 63 NRC 827 (2006)
- National Historic Preservation Act, 106, 16 U.S.C. § 470f
an agency official must complete the review process prior to the approval of the expenditure of any federal funds on the undertaking or prior to the issuance of any license or permit; CLI-06-11, 63 NRC 488 n.25 (2006)
no nomination or formal determination of eligibility is necessary to trigger a review; CLI-06-9, 63 NRC 441 (2006)
NRC must take into account the effect of the licensed undertaking on historic properties; CLI-06-9, 63 NRC 437 (2006)
NRC Staff must conduct a general review, develop a plan for completing NHPA review of the sites on an incremental or phased basis, and publish its evaluation and its plans for completing its NHPA review in its final environmental impact statement; CLI-06-11, 63 NRC 486 (2006)
- New Mexico Mining Act, N.M. Stat. § 69-36-1 *et seq.* (1978)
New Mexico regulates conventional uranium mining within the state; CLI-06-14, 63 NRC 513 (2006)
- Nuclear Waste Policy Act of 1982, 114(d), 42 U.S.C. § 10134(d) (2000)
the Commission may extend its deadline for completing its examination of DOE's application for construction of a high-level waste repository by an additional year; CLI-06-5, 63 NRC 146 n.8 (2006)
to meet its statutory obligation, the Commission must complete its examination of DOE's application for construction of a high-level waste repository within 3 years of its filing; CLI-06-5, 63 NRC 146 (2006)
- Nuclear Waste Policy Act of 1982, 218, 42 U.S.C. § 10198
development of dry cask storage and temporary storage facilities are encouraged; CLI-06-3, 63 NRC 31 (2005)

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- Nuclear Waste Policy Act of 1982, 302(b)(1)(B), 42 U.S.C. § 10222(b)(1)(B)
NRC is authorized to predicate a reactor license on the licensee's first entering a waste disposal contract with DOE; CLI-06-3, 63 NRC 30 (2005)
- Speedy Trial Act, 18 U.S.C. § 3161(c)(1)
a criminal trial must start within 70 days of arraignment; LBP-06-13, 63 NRC 546 n.85 (2006)
- Uranium Mill Tailings Radiation Control Act of 1978, 42 U.S.C. § 7911(8)
"tailings" are defined as the remaining portion of a metal-bearing ore after some or all of such metal, such as uranium, has been extracted; LBP-06-1, 63 NRC 64 (2006)
- USEC Privatization Act, 3113, 42 U.S.C. § 2297h-11
DOE is required to accept for disposal any low-level radioactive waste generated by a domestic, NRC-licensed uranium enrichment facility and recoup its disposition costs plus a pro rata share of deconversion facility construction costs from the licensee or responsible third party; LBP-06-15, 63 NRC 618, 628 (2006)
issuance of a uranium enrichment facility license is conditioned upon applicant providing decommissioning funding in an amount sufficient to cover, at any point during the life of the facility, the cost of DOE providing dispositioning services for the depleted uranium generated at the facility; LBP-06-15, 63 NRC 603 (2006); LBP-06-17, 63 NRC 772, 789 (2006)
- USEC Privatization Act, 3113(a), 42 U.S.C. § 2297h-11
if requested by an NRC-licensed uranium enrichment licensee, DOE is required to accept for disposal depleted uranium if it were ultimately determined to be a low-level radioactive waste; CLI-06-15, 63 NRC 705 n.86 (2006)

**LEGAL CITATIONS INDEX
OTHERS**

- ABA Comm. on Ethics and Prof'l Responsibility, Formal Op. 93-378 (1993)
ethics consequences of *ex parte* contacts with expert witnesses for other parties are discussed; LBP-06-10, 63 NRC 334 (2006)
- 15A Am. Jur. 2d *Compromise and Settlement* § 1 (2005)
a settlement agreement is an agreement to terminate, by means of mutual concessions, a claim that is disputed in good faith or unliquidated; LBP-06-18, 63 NRC 838 (2006)
- Fed. R. Civ. P. 11
attorneys must assure that representations made in all pleadings to the best of their knowledge, information, and belief are true; LBP-06-10, 63 NRC 333, 370 (2006)
counsel have an ethical responsibility not to knowingly make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; LBP-06-10, 63 NRC 333 (2006)
- Fed. R. Civ. P. 26(c), 37(a)(2)(A)
in certain narrow circumstances, the Federal Rules of Civil Procedure impose requirements similar to those in 10 C.F.R. 2.323(b); CLI-06-5, 63 NRC 129 n.17 (2006)
- Fed. R. Civ. P. 56
the Commission applies the same standard for summary disposition that the federal courts apply when ruling on motions for summary judgment; CLI-06-5, 63 NRC 121 (2006)
- Fed. R. Crim. P. 16
federal rules do not automatically provide for discovery using interrogatories and depositions, but NRC rules do; CLI-06-12, 63 NRC 502 n.22 (2006)
- H.R. Rep. No. 97-177, at 151 (1981)
by raising the admission standards for contentions, the Commission intended to obviate serious hearing delays caused in the past by poorly defined or supported contentions; LBP-06-10, 63 NRC 380 (2006)
- Model Code of Prof'l Responsibility DR 7-102(A)(5) (1980)
attorneys must not knowingly make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; LBP-06-10, 63 NRC 333, 370 (2006)
counsel have an ethical responsibility not to knowingly make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; LBP-06-10, 63 NRC 333 (2006)
- Model Rules of Prof'l Conduct R. 1.1 (2003)
a lawyer shall provide competent representation to a client, which requires the legal knowledge, skill, thoroughness, and preparation reasonably necessary for the representation; LBP-06-10, 63 NRC 370 n.3, 386 (2006)
- Model Rules of Prof'l Conduct R. 3.3 (2003)
attorneys must not knowingly make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; LBP-06-10, 63 NRC 333, 370 (2006)
counsel have an ethical responsibility not to knowingly make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; LBP-06-10, 63 NRC 333 (2006)

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- Ohio Disciplinary Code of Prof'l Responsibility DR 7-102(A)(5) (2003)
counsel have an ethical responsibility not to knowingly make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; LBP-06-10, 63 NRC 333 (2006)
- counsel must not knowingly make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; LBP-06-10, 63 NRC 333, 370 (2006)
- Milton Pollack, *Parallel Civil and Criminal Proceedings*, 129 F.R.D. 201, 201 (1990)
in considering the reason for a requested delay, it is important to consider which party initiated the civil action and which party is seeking relief from its going forward; LBP-06-13, 63 NRC 539 n.49 (2006)
- Milton Pollack, *Parallel Civil and Criminal Proceedings*, 129 F.R.D. 201, 202 (1990)
stay of the civil proceeding is not always appropriate when there is a parallel criminal proceeding; LBP-06-13, 63 NRC 540 n.50 (2006)
- Milton Pollack, *Parallel Civil and Criminal Proceedings*, 129 F.R.D. 201, 210 (1990)
the policy underlying the limited scope of discovery under the criminal rules is rooted in concerns about possible perjury, manufacture of false evidence, and intimidation of confidential government informants; LBP-06-13, 63 NRC 539 n.48 (2006)
- Milton Pollack, *Parallel Civil and Criminal Proceedings*, 129 F.R.D. 201, 211 (1990)
a general stay of all civil discovery is not by any means the best option available to the court or to the litigants; LBP-06-13, 63 NRC 538 n.43 (2006)
- Paul F. Rothstein & Susan Crump, *Federal Testimonial Privileges* § 5:10 (2d ed. 2005)
five factors are applied to test for qualifying the deliberative process privilege; LBP-06-3, 63 NRC 92 n.10 (2006)
- Sandra Day O'Connor, *Professionalism*, 76 WASH. U. L.Q. 5 (1998)
a decline in professionalism among lawyers is responsible for the diminishing image and reputation of lawyers in society; LBP-06-10, 63 NRC 371 (2006)
- Webster's Third New International Dictionary of the English Language* 105 (1993)
an "application" is the act of applying, where "apply" means to make an appeal or a request especially formally and often in writing and usually for something of benefit to oneself; CLI-06-5, 63 NRC 154 n.37 (2006)
- Webster's Third New International Dictionary of the English Language* 1925 (1993)
a "report" is a usually formal and sometimes official statement giving the conclusions and recommendations of a person or group authorized or delegated to consider a proposal; CLI-06-5, 63 NRC 154 n.37 (2006)
- Webster's Third New International Dictionary of the English Language* 2268 (1993)
a "study" is a careful examination or analysis of a phenomenon, development, or question usually within a limited area of investigation; CLI-06-5, 63 NRC 154 n.37 (2006)
- Charles Alan Wright, *Federal Practice & Procedure: Federal Rules of Criminal Procedure* § 252 (3d ed. 2000)
discovery in criminal cases is a matter of course; LBP-06-13, 63 NRC 552 n.103 (2006)
- 26A Charles Alan Wright & Kenneth W. Graham, Jr., *Federal Practice and Procedure* § 5690 (1992 & Supp. 2005)
the importance of the evidence to the case is generally determinative in the balancing test for qualifying the deliberative process privilege; LBP-06-3, 63 NRC 92 (2006)
- 10A Charles Alan Wright et al., *Federal Practice & Procedure* § 2727 (3d ed. 1998)
the proponent of summary disposition fails to meet its burden when the filings demonstrate the existence of a genuine material fact, when the evidence introduced does not show that the nonmoving party's position is a sham, when the matters presented fail to foreclose the possibility of a factual dispute, or when there is an issue as to the credibility of the moving party's evidentiary material; CLI-06-5, 63 NRC 122 (2006)

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ABEYANCE OF PROCEEDING

- a government motion for an indefinite enforcement hearing delay must be denied when the government fails to show that the prompt conduct of the NRC hearing process would interfere with the government's prosecution of the criminal charges and when the subject of the order has shown that the delay would continue to deprive him of his chosen livelihood and its anticipated income; LBP-06-13, 63 NRC 523 (2006)
- although the civil discovery process could lead to the tainting of evidence in a criminal case and to the defendant's obtaining access to evidence that would provide him an unfair advantage over the government, the moving party must provide some practical applicability to the particular circumstances of the case in order for it to obtain the delay sought; LBP-06-13, 63 NRC 523 (2006)
- assertion of a hearing right weighs against granting the abeyance, but this factor is, by its nature, merely procedural, and consequently is of little importance when balancing real-life equities; CLI-06-12, 63 NRC 495 (2006)
- assertion of hearing right and risk of erroneous deprivation generally are given less weight unless the assertion was dilatory or perfunctory or the risk can be shown to be either quite high or vanishingly low; LBP-06-13, 63 NRC 523 (2006)
- for purpose of interlocutory review, a board decision is "pervasive" and "unusual" when it stops the entire proceeding in its tracks and because the Commission and its boards have rarely, if ever, held an enforcement proceeding in abeyance for an indeterminate length of time; CLI-06-12, 63 NRC 495 (2006)
- in determining whether there is good cause to delay a proceeding challenging an immediately effective license suspension moving, NRC evaluates five factors; LBP-06-13, 63 NRC 523 (2006)
- in witness-intensive cases, delay is tolerable only if the Staff can demonstrate an important government interest coupled with factors minimizing the risk of an erroneous deprivation; CLI-06-12, 63 NRC 495 (2006)
- NRC generally defers to the Department of Justice when it seeks a delay in NRC enforcement proceedings pending the conclusion of DOJ's own criminal investigations or proceedings; CLI-06-12, 63 NRC 495 (2006)
- pendency of a criminal trial does not automatically toll the time for instituting a civil proceeding; LBP-06-13, 63 NRC 523 (2006)
- saying the government needs to demonstrate the potential for the tainting of evidence is not the equivalent of insisting that the government establish that perjury or intimidation would necessarily take place; LBP-06-13, 63 NRC 523 (2006)
- the critical issues to be determined when deciding a motion for delay involve "relative harm," that is, whether and to what extent movant has shown that not granting a delay will harm it versus whether and to what extent granting that same delay will harm the movant's opponent; LBP-06-13, 63 NRC 523 (2006)
- the Federal Rules of Criminal Procedure prescribe the disclosures necessary for a fair balance between criminal defendants' and prosecutors' interests; CLI-06-12, 63 NRC 495 (2006)
- the party supporting delay of an enforcement proceeding based on the pendency of a criminal case involving the same facts carries the burden of proof and must make at least some showing of potential detrimental effect on the criminal case; CLI-06-12, 63 NRC 495 (2006)

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the U.S. Attorney's voluntary adoption of an "open file" discovery process undercuts any complaint that allowing civil discovery to proceed would alter the usual balance as to just how much discovery a defendant can obtain; LBP-06-13, 63 NRC 523 (2006)

the weight to be given the proponent's reason for seeking an abeyance turns on the quality of the factual record on which the proponent relies; CLI-06-12, 63 NRC 495 (2006)

when determining whether good cause exists for delay of a proceeding, the decisionmaker must consider both the public interest as well as the interests of the person subject to the immediately effective order; CLI-06-12, 63 NRC 495 (2006)

when the party opposing a motion to stay an enforcement proceeding does not express undue concern that delay will diminish the quality of the evidence, that possibility may be put aside as nonspecific and not credited as prejudicing the subject of the order; LBP-06-13, 63 NRC 523 (2006)

where the length of the requested delay would depend on factors outside the Commission's control, the absence of control weighs against holding the case in abeyance; CLI-06-12, 63 NRC 495 (2006)

ACCIDENTS

the potential for an overfilled uranium hexafluoride transportation cylinder to rupture and release uranium hexafluoride is discussed; LBP-06-17, 63 NRC 747 (2006)

ACCIDENTS, SEVERE

uranium enrichment facility applicants must identify and assess all credible accident sequences and identify appropriate mitigation measures, commonly referred to as items relied on for safety, to prevent or mitigate the consequences of such accidents; LBP-06-17, 63 NRC 747 (2006)

AGING MANAGEMENT

a contention stating that monitoring activities may not be sufficient to identify and control the effects of aging that will occur during the 20-year renewal period falls within the scope of a license renewal proceeding; LBP-06-7, 63 NRC 188 (2006)

an issue can be related to plant aging and still not warrant review at the time of a license renewal application, if the issue is adequately dealt with by regulatory processes on an ongoing basis; LBP-06-10, 63 NRC 314 (2006)

for license renewal, NRC considers this to be the most significant overall safety concern posed by extended reactor operation; LBP-06-10, 63 NRC 314 (2006)

NRC's public health and safety review for a license renewal ordinarily is limited to a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; LBP-06-7, 63 NRC 188 (2006)

AGREEMENT STATE PROGRAMS

before entering into an agreement with any state, NRC is required to find the state radiation control program compatible in certain respects with that of the NRC, and adequate to protect the public health and safety with respect to the materials covered by the proposed agreement; LBP-06-8, 63 NRC 241 (2006)

before it is granted authority to participate in the Agreement State program, a state must pass legislation establishing the authority for that state to conduct a radiation control program, and must further assume and implement that authority through the promulgation of state regulations; LBP-06-8, 63 NRC 241 (2006)

NRC is authorized to transfer authority to any state government to regulate byproduct materials, source materials, and small quantities of special nuclear materials, including the disposal of such materials; LBP-06-8, 63 NRC 241 (2006)

NRC is required to conduct regular reviews of a state's radiation control program; LBP-06-8, 63 NRC 241 (2006)

NRC retains only oversight authority over the specific activities covered by the agreement, while the Agreement State assumes all active regulatory authority with regard to those specified activities; LBP-06-8, 63 NRC 241 (2006)

NRC retains the power to terminate or suspend an agreement with any state under certain circumstances if it determines that such action is required to ensure public health and safety; LBP-06-8, 63 NRC 241 (2006)

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AGREEMENT STATES

states have the authority, for the duration of the agreement, to regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards; LBP-06-8, 63 NRC 241 (2006)

the appropriate state or federal regulatory authority will conduct any necessary site-specific evaluation to confirm that applicable radiological dose limits and standards for disposal of depleted uranium can be met at a particular site; CLI-06-15, 63 NRC 687 (2006)

AIRCRAFT CRASHES

a contention asserting that a license application for an irradiator sited at an airport fails to analyze aircraft crash probabilities and consequences presents a genuine dispute on a material issue; LBP-06-12, 63 NRC 403 (2006)

ALTERNATIVES

See Consideration of Alternatives

AMENDMENT

when a board decision supplements or differs from the findings of the Staff as set forth in its final environmental impact statement, the FEIS is deemed modified by the board's decision to that extent; LBP-06-8, 63 NRC 241 (2006)

See also Operating License Amendments

AMENDMENT OF CONTENTIONS

a petitioner may not rectify its contention pleading inadequacies in its reply; LBP-06-12, 63 NRC 403 (2006)

A reply cannot expand the scope of the arguments set forth in the original pleading; CLI-06-17, 63 NRC 727 (2006)

after the Staff's technical review has been completed and the documents associated with it are made publicly available, the board will enter an order providing petitioner with a reasonable opportunity to review those documents and to decide whether it wishes to make changes in the contentions it has presented to the board; LBP-06-6, 63 NRC 167 (2006)

if a contention as originally pled did not cite adequate documentary support, the petitioner cannot remediate the deficiency in its reply brief by introducing documents that were available to it during the time frame for initially filing contentions; CLI-06-17, 63 NRC 727 (2006)

new bases for a contention cannot be introduced in a reply brief, or any other time after the date the original contentions are due, unless the petitioner meets the late-filing criteria; CLI-06-17, 63 NRC 727 (2006)

NRC Staff communications that are declarations of programmatic policy or regulatory conclusions that, for example, might be analogized to conclusions in an environmental impact statement, could trigger a petitioner's right to amend or file new contentions; LBP-06-11, 63 NRC 391 (2006)

petitioner must file contentions based on the applicant's environmental report, but may amend those contentions or file new contentions if the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto differs significantly from the data or conclusions in the applicant's documents; CLI-06-9, 63 NRC 433 (2006); CLI-06-15, 63 NRC 687 (2006)

petitioner must show that the information upon which the contention is based was not previously available or is materially different than information previously available, and the amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information; LBP-06-11, 63 NRC 391 (2006)

petitioners seeking admission of new or amended contentions under 10 C.F.R. 2.309(f)(2) must also satisfy the standard admissibility requirements in 10 C.F.R. 2.309(f)(1); LBP-06-11, 63 NRC 391 (2006)

when an intervenor's challenges in an admitted contention are directed at a draft environmental impact statement because the FEIS has not yet been issued by the Staff, the contention can be construed as a challenge to the FEIS without the need for further modification; LBP-06-8, 63 NRC 241 (2006)

AMICUS CURIAE

a petitioner denied discretionary intervention could still participate as amicus curiae or as an expert witness; CLI-06-16, 63 NRC 708 (2006)

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APPEALS

- absent extreme circumstances, the Commission will not consider on appeal either new arguments or new evidence supporting a contention that the licensing board never had the opportunity to consider; CLI-06-10, 63 NRC 451 (2006)
- challenges to the admissibility of less than all admitted contentions must abide the end of the case; CLI-06-13, 63 NRC 508 (2006)
- regulations governing appeals from the denial of intervention provide for a notice of appeal with a supporting brief, and for a brief opposing the appeal, but do not provide for reply briefs; CLI-06-9, 63 NRC 433 (2006)

APPEALS, INTERLOCUTORY

- a board decision is "pervasive" and "unusual" when it stops the entire proceeding in its tracks and because the Commission and its boards have rarely, if ever, held an enforcement proceeding in abeyance for an indeterminate length of time; CLI-06-12, 63 NRC 495 (2006)
- an applicant has the right to file an interlocutory appeal of board orders admitting contentions, but only if the appeal challenges the admissibility of all admitted contentions; CLI-06-13, 63 NRC 508 (2006)
- NRC regulations do not provide a right to appeal interlocutory orders; CLI-06-12, 63 NRC 495 (2006)

APPELLATE BRIEFS

- a notice of appeal must be accompanied by a brief; CLI-06-6, 63 NRC 161 (2006)
- generalized claims followed by unelaborated references to oral arguments and multiple pages run afoul of NRC page limitation rules; CLI-06-10, 63 NRC 451 (2006)

APPELLATE REVIEW

- a presiding officer's ruling that is without governing precedent is appropriate for review; CLI-06-7, 63 NRC 165 (2006)
- denial of review is not a decision on the merits, but simply indicates that the appealing party identified no clearly erroneous factual finding or important legal error requiring Commission correction; LBP-06-1, 63 NRC 41 (2006)
- failure to submit a brief, including legal argument and citations to the record, is reason enough to reject an appeal; CLI-06-6, 63 NRC 161 (2006)
- legal determinations made on appeal in a case are controlling precedent, becoming the law of the case for all later decisions in the same case, with only limited exceptions; LBP-06-11, 63 NRC 483 (2006)
- the Commission has discretion to grant a petition for review, giving due weight to the existence of a substantial question with respect to any of the grounds listed in the Commission's regulations as potential justification; LBP-06-11, 63 NRC 483 (2006)
- the Commission has discretion to review all underlying factual issues *de novo*, but it is disinclined to do so where a board has weighed arguments presented by experts and rendered reasonable, record-based factual findings; CLI-06-12, 63 NRC 495 (2006); CLI-06-15, 63 NRC 687 (2006)
- the Commission routinely accords substantial deference to licensing boards on matters involving standing and credibility determinations, and thus does not lightly set aside a board's grant of discretionary intervention; CLI-06-16, 63 NRC 708 (2006)
- the Commission will reverse a licensing board's determination on discretionary intervention only if the board has abused its discretion; CLI-06-16, 63 NRC 708 (2006)
- when a presiding officer has reviewed an extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed; CLI-06-1, 63 NRC 1 (2006)
- when a substantial and important question of law is presented, Commission review is appropriate; CLI-06-7, 63 NRC 165 (2006)
- when intervenors have not identified any clearly erroneous factual finding or significant legal error, plenary review is not warranted; CLI-06-1, 63 NRC 1 (2006)

APPLICANTS

- the burden that the contention admissibility rules impose on petitioners to put forth a sufficient factual basis does not shift the ultimate burden of proof from the applicant to the petitioner; LBP-06-10, 63 NRC 314 (2006)
- the potential environmental effects of a proposed agency action must be described; LBP-06-8, 63 NRC 241 (2006)

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when NRC reviews an application filed by a private entity, as opposed to a project initiated by the federal government, it may accord substantial weight to the applicant's preferences with regard to consideration of alternatives, including choices regarding site selection and project design; CLI-06-10, 63 NRC 451 (2006); LBP-06-8, 63 NRC 241 (2006)

ATOMIC ENERGY ACT

before a uranium enrichment facility can be licensed, a hearing is required to be held on that license application; LBP-06-17, 63 NRC 747 (2006)

before entering into an agreement with any state, NRC is required to find the state radiation control program compatible in certain respects with that of the NRC, and adequate to protect the public health and safety with respect to the materials covered by the proposed agreement; LBP-06-8, 63 NRC 241 (2006)

NRC authority over uranium ore and other source material attaches only after removal from its place of deposit in nature and not when the ore is mined; CLI-06-14, 63 NRC 510 (2006)

NRC is authorized to enter into agreements with the governor of any state to transfer authority to regulate byproduct materials, source materials, and small quantities of special nuclear materials, including the disposal of such materials; LBP-06-8, 63 NRC 241 (2006)

NRC may grant license amendments, and make them immediately effective, in advance of the holding and completion of any required hearing, as long as NRC determines that the amendment involves no significant hazards consideration; CLI-06-8, 63 NRC 235 (2006)

ATTORNEY CONDUCT

all counsel have a continuing duty to update a tribunal about any development that may conceivably affect the outcome of litigation; LBP-06-10, 63 NRC 314 (2006)

because of an attorney's previous disregard of the NRC's practices and procedures, the Commission orders the Office of the Secretary to screen all filings bearing the offender's signature and not to accept or docket them unless they meet all procedural requirements; CLI-06-4, 63 NRC 32 (2006)

counsel have an ethical responsibility not to knowingly make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; LBP-06-10, 63 NRC 314 (2006)

counsel have an obligation to assure that, to the best of their knowledge, information, and belief, representations made in all pleadings are true; LBP-06-10, 63 NRC 314 (2006)

Staff counsel had a duty to inform the board of a telephone call from a former expert witness of petitioners because she knew that this information was conceivably relevant to a ruling on a contention; LBP-06-10, 63 NRC 314 (2006)

Staff counsel's imparting of the information about a telephone call from petitioner's former expert witness did not violate any ethical prohibitions because the expert in question was not represented by petitioners' counsel, the call was initiated by the expert, and no deception or coercion was in any way involved; LBP-06-10, 63 NRC 314 (2006)

BACKGROUND RADIATION

all uranium and thorium are source material, but the NRC does not regulate source material in unprocessed ores and source material with insignificant concentrations of radionuclides; CLI-06-14, 63 NRC 510 (2006)

emissions not directly tied to licensed activity are excluded from total effective dose equivalent calculations; CLI-06-14, 63 NRC 510 (2006)

in the regulatory definition, because the regulatory words "source, byproduct, [and] special nuclear materials" are followed by a clause that is applicable as much to the first and other words as to the last, the natural construction of the language demands that the clause be read as applicable to all; LBP-06-1, 63 NRC 41 (2006)

inclusion of technologically enhanced naturally occurring radioactive material as a subset of naturally occurring radioactive material was implicit at the time the regulatory definition of background radiation was promulgated; CLI-06-14, 63 NRC 510 (2006)

mine spoil is a subset of naturally occurring radioactive material; CLI-06-14, 63 NRC 510 (2006)

radon is not included in the definition except as a decay product of source or special nuclear material; LBP-06-1, 63 NRC 41 (2006)

SUBJECT INDEX

the phrase “not under the control of the licensee” was added to the definition of background radiation when the Commission amended the definition to include fallout from past nuclear accidents such as Chernobyl; LBP-06-1, 63 NRC 41 (2006)

BRIEFS

See Appellate Briefs; Reply Briefs

BURDEN OF PROOF

the burden that the contention admissibility rules impose on petitioners to put forth a sufficient factual basis does not shift the ultimate burden of proof from the applicant to the petitioner; LBP-06-10, 63 NRC 314 (2006)

the party supporting abeyance of an enforcement proceeding based on the pendency of a criminal case involving the same facts carries the burden of proof and must make at least some showing of potential detrimental effect on the criminal case; CLI-06-12, 63 NRC 495 (2006)

BYPRODUCT MATERIALS

for tailings or wastes to fall within the definition of byproduct material, the plain statutory and regulatory language requires that such tailings or wastes be produced from ore that has been processed for its source material content; LBP-06-1, 63 NRC 41 (2006)

CONSIDERATION OF ALTERNATIVES

agencies need only consider those alternatives that can achieve the purposes of the project; CLI-06-10, 63 NRC 451 (2006)

an adverse effect is a required precondition under the National Historic Preservation Act; CLI-06-9, 63 NRC 433 (2006)

federal agencies must study, develop, and describe appropriate alternatives to the recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; LBP-06-17, 63 NRC 747 (2006)

when NRC reviews an application filed by a private entity, as opposed to a project initiated by the federal government, it may accord substantial weight to the applicant’s preferences with regard to consideration of alternatives, including choices regarding site selection and project design; CLI-06-10, 63 NRC 451 (2006); LBP-06-8, 63 NRC 241 (2006)

CONSTRUCTION OF MEANING

pursuant to the rule of the last antecedent, qualifying words, phrases, and clauses must be applied to the words or phrases immediately preceding them and are not to be construed as extending to and including others more remote; LBP-06-1, 63 NRC 41 (2006)

See also Regulations, Interpretation; Statutory Construction

CONSTRUCTION OF TERMS

a term that lacks a statutory or regulatory definition should be construed in accord with its ordinary or natural meaning; LBP-06-1, 63 NRC 41 (2006)

technical terms of art should be interpreted by reference to the trade or industry to which they apply; CLI-06-14, 63 NRC 510 (2006)

See also Definitions

CONSULTATION DUTY

a summary disposition movant must make a sincere effort to contact other parties in the proceeding and to resolve the issues raised in the motion; LBP-06-5, 63 NRC 116 (2006)

CONTAMINATION, RADIOLOGICAL

See Radiological Contamination

CONTENTIONS

a petitioner seeking discretionary intervention must propose at least one admissible contention; CLI-06-16, 63 NRC 708 (2006)

a recitation of facts or expert opinion supporting the issue raised is inapplicable to a contention of omission beyond identifying the regulatorily required missing information; LBP-06-12, 63 NRC 403 (2006)

boards may reframe contentions, following a determination of their admissibility, for purposes of clarity, succinctness, and a more efficient proceeding; CLI-06-16, 63 NRC 708 (2006)

boards must not redraft inadmissible contentions to cure deficiencies and thereby render them admissible; CLI-06-16, 63 NRC 708 (2006)

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- for a petitioner to be admitted as a party in a materials license amendment proceeding, it must propose at least one admissible contention that meets the requirements of 10 C.F.R. 2.309(f)(1); LBP-06-6, 63 NRC 167 (2006)
 - if a contention alleges the omission of particular information or an issue from an application, and the information is later supplied by the applicant, the contention is moot; CLI-06-9, 63 NRC 433 (2006); LBP-06-16, 63 NRC 737 (2006)
 - in passing upon the question as to whether an intervention petition should be granted, it is not the function of a licensing board to reach the merits of any contention contained therein; LBP-06-6, 63 NRC 167 (2006)
 - it may be necessary to examine the language of the bases to determine a contention's scope; LBP-06-16, 63 NRC 737 (2006)
 - resolution of factual disputes is not the appropriate subject of inquiry at the contention admissibility stage of the proceeding; LBP-06-4, 63 NRC 99 (2006)
 - the bar against corrective redrafting of contentions is particularly compelling in the context of a request for discretionary intervention because rewriting undermines the very basis for granting discretionary intervention, i.e., the petitioner's demonstrated ability to contribute to the record; CLI-06-16, 63 NRC 708 (2006)
 - the February 2004 revision of NRC procedural rules no longer permits the amendment and supplementation of petitions and the filing of contentions after the original filing of petitions; LBP-06-10, 63 NRC 314 (2006)
 - the plain language of a contention will reveal whether it is a claim of omission, a specific substantive challenge to an application, or a combination of both; LBP-06-16, 63 NRC 737 (2006)
 - there is a difference between contentions that allege that a license application suffers from an improper omission and contentions that raise a specific substantive challenge to how particular information or issues have been discussed in a license application; LBP-06-16, 63 NRC 737 (2006)
- See also Amendment of Contentions

CONTENTIONS, ADMISSIBILITY

- a challenge the agency's overall enforcement policy is outside the scope of the enforcement proceeding and therefore is inadmissible; CLI-06-16, 63 NRC 708 (2006); LBP-06-12, 63 NRC 403 (2006)
- a contention asserting that an license application for an irradiator sited at an airport fails to analyze aircraft crash probabilities and consequences presents a genuine dispute on a material issue; LBP-06-12, 63 NRC 403 (2006)
- a contention is not an impermissible challenge to agency regulations merely because the applicant and the Staff believe the regulations have been satisfied; LBP-06-12, 63 NRC 403 (2006)
- a contention must explain, with specificity, particular safety or legal reasons requiring rejection of the contested application, and demonstrate that there has been sufficient foundation assigned for it to warrant further exploration; LBP-06-10, 63 NRC 314 (2006)
- a contention must meet certain specificity and basis requirements and must fall within the scope of the proceeding; CLI-06-16, 63 NRC 708 (2006)
- a contention stating that monitoring activities may not be sufficient to identify and control the effects of aging that will occur during the 20-year renewal period falls within the scope of a license renewal proceeding; LBP-06-7, 63 NRC 188 (2006)
- a contention will be ruled inadmissible where the petitioner has offered only bare assertions and speculation; LBP-06-7, 63 NRC 188 (2006)
- a contention's proponent, not the licensing board, is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement; CLI-06-10, 63 NRC 451 (2006)
- a design-based challenge involving a postulated cask drop on a sealed source is within the scope of, and material to, an irradiator licensing proceeding; LBP-06-12, 63 NRC 403 (2006)
- a petitioner is not required to prove its case at the contention admission stage; LBP-06-10, 63 NRC 314 (2006)
- a petitioner who believes that a license application fails to contain information on a relevant matter as required by law must identify each failure and the supporting reasons for the petitioner's belief; LBP-06-10, 63 NRC 314 (2006)
- a petitioner who fails to develop an argument in its petition is foreclosed from doing so in the first instance in its reply brief; CLI-06-17, 63 NRC 727 (2006); LBP-06-7, 63 NRC 188 (2006)

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- a request for an exemption from a particular regulatory provision does not render a license application deficient; CLI-06-10, 63 NRC 451 (2006)
- a Staff-issued Request for Additional Information ordinarily may not be used to support admission of a new contention because such a request, standing alone, generally does not give rise to a genuine dispute on material issues; LBP-06-11, 63 NRC 391 (2006)
- absent evidence to the contrary, a licensing board will not assume that a licensee will act in derogation of its formal commitments to the NRC Staff; LBP-06-7, 63 NRC 188 (2006)
- absent extreme circumstances, the Commission will not consider on appeal either new arguments or new evidence supporting a contention that the licensing board never had the opportunity to consider; CLI-06-10, 63 NRC 451 (2006)
- allegations of radiological and nonradiological contamination of drinking water are outside the scope of a license renewal proceeding because they involve no aging-related issues and are Category 1, or generic, issues; LBP-06-10, 63 NRC 314 (2006)
- an allegation that some aspect of a license application is "inadequate" or "unacceptable" does not give rise to a genuine dispute unless it is supported by facts and a reasoned statement of why the application is unacceptable in some material respect; LBP-06-10, 63 NRC 314 (2006)
- an enforcement contention might appropriately address the factual underpinnings of the NRC Staff's finding of violation or the mitigating factors to be considered in determining the penalty; CLI-06-16, 63 NRC 708 (2006)
- an expert opinion that merely states a conclusion without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the board of the ability to make the necessary, reflective assessment of the opinion; CLI-06-10, 63 NRC 451 (2006)
- an intervenor may not attempt to use a license application proceeding to rewrite NRC regulations; LBP-06-1, 63 NRC 41 (2006)
- an issue related to plant aging may not warrant review at the time of a license renewal application if the issue is adequately dealt with by regulatory processes on an ongoing basis; LBP-06-10, 63 NRC 314 (2006)
- applicant has the right to file an interlocutory appeal of board orders admitting contentions, but only if the appeal challenges the admissibility of all admitted contentions; CLI-06-13, 63 NRC 508 (2006)
- at the contention filing stage, a licensing board will not adjudicate merits-related issues; LBP-06-7, 63 NRC 188 (2006)
- at the contention filing stage, the factual support necessary to show that a genuine dispute exists need not be in formal evidentiary form or be as strong as that necessary to withstand a summary disposition motion; LBP-06-7, 63 NRC 188 (2006); LBP-06-10, 63 NRC 314 (2006)
- Category 1, or generic, issues in Appendix B to Subpart A of Part 51 are not within the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)
- Category 2 issues, for which an applicant must make a plant-specific analysis of environmental impacts in its environmental report and the NRC Staff must prepare a supplemental environmental impact statement, ordinarily are deemed to be within the scope of license renewal proceedings; LBP-06-7, 63 NRC 188 (2006); LBP-06-10, 63 NRC 314 (2006)
- challenges to the implementing procedures for a reactor emergency plan are not material in a materials license proceeding; LBP-06-12, 63 NRC 403 (2006)
- compliance with regulations of other federal agencies, such as Environmental Protection Agency drinking water contamination limits, is beyond a board's jurisdiction and outside the scope of a materials license proceeding; LBP-06-8, 63 NRC 241 (2006)
- contention admissibility requirements are rigorous and demand a level of discipline and preparedness on the part of petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the outset; LBP-06-12, 63 NRC 403 (2006)
- contentions must be based on a genuine material dispute, not the possibility that petitioners, if they perform their own additional analyses, may ultimately disagree with the application; CLI-06-10, 63 NRC 451 (2006)
- contentions must satisfy the six factors of 10 C.F.R. 2.309(f)(1); LBP-06-4, 63 NRC 99 (2006)
- contentions will be screened out when petitioners have no particular expertise or expert assistance and no particularized grievance; LBP-06-10, 63 NRC 314 (2006)

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determination of admissibility of "areas of concern" based upon a standard of "germaneness" is no longer applicable in NRC proceedings; LBP-06-12, 63 NRC 403 (2006)

embrittlement of the reactor pressure vessel is within the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)

enforcement orders limit adjudication to whether the facts as stated in the order are true and whether the proposed sanction is supported by those facts; CLI-06-16, 63 NRC 708 (2006)

environmental issues that might otherwise be relevant to license renewal shall be resolved generically for all plants and thus are beyond the scope of a license renewal hearing; LBP-06-7, 63 NRC 188 (2006)

environmental justice issues are inadmissible when no sufficiently specific disproportionate effects with a nexus to the physical environment are alleged or shown to fall on low-income and minority communities; LBP-06-10, 63 NRC 314 (2006)

failure of a contention to meet any of the requirements of section 2.309(f)(1) is grounds for its dismissal; LBP-06-10, 63 NRC 314 (2006)

for each contention, a petitioner must provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact; LBP-06-10, 63 NRC 314 (2006)

given the significant effort involved in identifying new information, assembling the required expertise, and then drafting a contention that satisfies section 2.309(f)(1), it would be inappropriate to impose the very short 10-day rule on the filing of new contentions; LBP-06-14, 63 NRC 568 (2006)

if a board misapprehends the intended meaning of a contention, the petitioner bears the responsibility for that misunderstanding; LBP-06-12, 63 NRC 403 (2006)

if new and materially different information becomes available during the processing of the application, and a petitioner promptly files a new contention based on this new information, the contention is admissible if it also satisfies the general contention pleading standards; LBP-06-14, 63 NRC 568 (2006)

if petitioner files a new contention within the 20-day time limit set by the board, and if it satisfies the remaining factors in section 2.309(f)(2), petitioner need not address the requirements under section 2.309(c), which apply to nontimely filings; LBP-06-16, 63 NRC 737 (2006)

in the interest of economical use of NRC resources, a board postpones examination of the balance of petitioner's claims to determine whether they are in conformity with the requirements of the Rules of Practice; LBP-06-6, 63 NRC 167 (2006)

information must include references to specific portions of the application, including the applicant's environmental report and safety report, that the petitioner disputes and the supporting reasons for each dispute; LBP-06-10, 63 NRC 314 (2006)

intervenor need not make its case at the contention stage of the proceeding, but rather must indicate what facts or expert opinions provide the basis for its contention; LBP-06-10, 63 NRC 314 (2006)

introduction of issues that are not unique to any given reactor are inappropriate in an individual reactor licensing proceeding absent evidence that the generic issue applies to that particular proceeding; LBP-06-11, 63 NRC 391 (2006)

issues must be germane to the application pending before the board, and are not cognizable unless they are material to matters that fall within the scope of the proceeding as set forth in the Commission's notice of opportunity for hearing; LBP-06-10, 63 NRC 314 (2006)

issues relating to a plant's current licensing basis are ordinarily beyond the scope of a license renewal review, because those issues already are monitored, reviewed, and commonly resolved as needed by ongoing regulatory oversight; LBP-06-7, 63 NRC 188 (2006)

licensing boards are expected to examine cited materials to verify that they support a contention, but are not expected to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves; CLI-06-10, 63 NRC 451 (2006)

licensing boards do not consider any information found in a reply to an answer to an intervention petition that was not in petitioner's original contentions, unless it constitutes legitimate amplification of original contentions or properly late-filed material; LBP-06-10, 63 NRC 314 (2006)

licensing boards may not make factual inferences on a petitioner's behalf; LBP-06-10, 63 NRC 314 (2006)

licensing boards should not accept in individual license proceedings contentions that are, or are about to become, the subject of general rulemaking by the Commission; LBP-06-7, 63 NRC 188 (2006)

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new bases for a contention cannot be introduced in a reply brief, or any other time after the date the original contentions are due, unless the petitioner meets the late-filing criteria; CLI-06-17, 63 NRC 727 (2006)

no contention will be admitted for litigation in any NRC adjudicatory proceeding unless the pleading requirements are met; CLI-06-10, 63 NRC 451 (2006)

no specific number of days whereby a board can measure or determine whether a contention is "timely" is specified by RC regulations; LBP-06-14, 63 NRC 568 (2006)

NRC may exclude a later intervenor if another party has fully presented a material issue identical to the one the excluded party seeks to raise or if the later intervenor's proposed new contention is based on a later filed safety evaluation report or environmental impact statement where the issues were apparent at the time of the application; LBP-06-14, 63 NRC 568 (2006)

NRC rules call for a clear statement of the basis for the contentions and the submission of supporting information and references to specific documents and sources that establish the validity of the contention; CLI-06-9, 63 NRC 433 (2006)

NRC Staff's mere interest in an issue, its solicitation of public input on an issue, or its proposed revision to a generic guidance document will not, standing alone and lacking an articulated plant-specific safety concern, suffice as a contention's cornerstone; LBP-06-11, 63 NRC 391 (2006)

petitioner is not required to provide an exhaustive discussion in its proffered contention, as long as it meets the Commission's admissibility requirements; LBP-06-4, 63 NRC 99 (2006)

petitioner must demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding; LBP-06-10, 63 NRC 314 (2006)

petitioner must file contentions based on the applicant's environmental report, but may amend those contentions or file new contentions if the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto differs significantly from the data or conclusions in the applicant's documents; CLI-06-9, 63 NRC 433 (2006)

petitioner must provide a specific statement of the issue of law or fact to be raised or controverted, and a brief explanation of the basis for the contention; LBP-06-10, 63 NRC 314 (2006)

petitioner must provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention; LBP-06-10, 63 NRC 314 (2006)

petitioner must read the pertinent portions of a license application, including the safety analysis report and the environmental report, state the applicant's position and the petitioner's opposing view, and explain why it disagrees with the applicant; LBP-06-10, 63 NRC 314 (2006)

petitioners cannot submit only generalized suspicions in hopes of substantiating them later; LBP-06-10, 63 NRC 314 (2006)

pleading requirements are deliberately strict, and the Commission will reject any contention that does not satisfy these requirements; CLI-06-9, 63 NRC 433 (2006)

rules of practice require a concise statement of the alleged facts or expert opinions that support petitioner's position, but does not require the submission of an expert opinion or require that an expert opinion be submitted in the form of admissible evidence; LBP-06-7, 63 NRC 188 (2006)

six basic pleading standards must be satisfied whether contentions are filed at the outset of the proceeding, are filed in a timely fashion when material new information arises, or are untimely filings; LBP-06-14, 63 NRC 568 (2006)

spent fuel storage issues are outside the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)

technical perfection is not an essential element of contention pleading; LBP-06-10, 63 NRC 314 (2006)

terrorism issues are outside the scope of agency NEPA review and are inadmissible; LBP-06-4, 63 NRC 99 (2006)

the burden that the contention admissibility rules impose on petitioners to put forth a sufficient factual basis does not shift the ultimate burden of proof from the applicant to the petitioner; LBP-06-10, 63 NRC 314 (2006)

the filing in a reply brief of new arguments or new legal theories that opposing parties have not had the opportunity to address is not permitted; CLI-06-9, 63 NRC 433 (2006)

the scope of a proceeding generally is defined by the Commission's notice of opportunity for hearing; LBP-06-12, 63 NRC 403 (2006)

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- the strict contention rule serves to focus the hearing process on real disputes susceptible of resolution in an adjudication, to put other parties on notice of petitioners' specific grievances, to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions; LBP-06-10, 63 NRC 314 (2006)
- three regulations govern the admissibility of contentions added after an adjudicatory hearing has commenced; LBP-06-14, 63 NRC 568 (2006)
- to the extent that licensee's response focuses on the merits of petitioner's contention at the admissibility stage, and not on whether it is admissible, the response is beyond consideration; LBP-06-6, 63 NRC 167 (2006)
- when a contention of omission has been rendered moot, and the intervenor wishes to raise specific challenges regarding the new information, it may timely file a new contention that addresses the admissibility factors of 10 C.F.R. 2.309(f)(1); LBP-06-16, 63 NRC 737 (2006)
- where new and material information is revealed in a piecemeal fashion, and where the foundation for a contention is not reasonably available until the later pieces fall into place, the admissibility decision turns on a determination about when, as a cumulative matter, the separate pieces of the information puzzle were sufficiently in place to make the particular concerns reasonably apparent; LBP-06-14, 63 NRC 568 (2006)
- whether good cause exists for failure to file on time is given the most weight; LBP-06-14, 63 NRC 568 (2006)
- CONTENTIONS, LATE-FILED**
- a new contention filed after the 60-day notice period has expired and based on information well known to petitioner for approximately 5 months prior to its filing is not timely; LBP-06-14, 63 NRC 568 (2006)
- a reply cannot expand the scope of the arguments set forth in the original pleading; CLI-06-17, 63 NRC 727 (2006)
- if a party seeks to reopen a closed record and, in the process, raises an issue that was not an admitted contention in the initial proceeding, it must also satisfy the section 2.326(d) requirements; CLI-06-4, 63 NRC 32 (2006)
- if petitioner files a new contention within the 20-day time limit set by the board, and if it satisfies the remaining factors in section 2.309(f)(2), petitioner need not address the requirements under section 2.309(c), which apply to nontimely filings; LBP-06-16, 63 NRC 737 (2006)
- new bases for a contention cannot be introduced in a reply brief, or any other time after the date the original contentions are due, unless the petitioner meets the late-filing criteria; CLI-06-17, 63 NRC 727 (2006)
- petitioner must show that the information upon which the contention is based was not previously available or is materially different than information previously available, and the amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information; LBP-06-11, 63 NRC 391 (2006)
- petitioners are to file their NEPA contentions based on the applicant's environmental report, and, later, if the NRC Staff's draft or final EIS contains data or conclusions that differ significantly from the data or conclusions in the applicant's documents, then petitioners may file new or amended contentions; CLI-06-15, 63 NRC 687 (2006)
- petitioners seeking admission of new or amended contentions under 10 C.F.R. 2.309(f)(2) must also satisfy the standard admissibility requirements in 10 C.F.R. 2.309(f)(1); LBP-06-11, 63 NRC 391 (2006)
- pleadings submitted by a petitioner acting *pro se* are not always expected to meet the same standards as pleadings drafted by lawyers, but late filing of documents is not condoned; LBP-06-14, 63 NRC 568 (2006)
- three regulations govern the admissibility of contentions added after an adjudicatory hearing has commenced; LBP-06-14, 63 NRC 568 (2006)
- when a contention of omission has been rendered moot, and the intervenor wishes to raise specific challenges regarding the new information, it may timely file a new contention that addresses the admissibility factors of 10 C.F.R. 2.309(f)(1); LBP-06-16, 63 NRC 737 (2006)
- where new and material information is revealed in a piecemeal fashion, and where the foundation for a contention is not reasonably available until the later pieces fall into place, the admissibility decision turns on a determination about when, as a cumulative matter, the separate pieces of the information

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- puzzle were sufficiently in place to make the particular concerns reasonably apparent; LBP-06-14, 63 NRC 568 (2006)
- whether good cause exists for failure to file on time is given the most weight in determining admissibility; LBP-06-14, 63 NRC 568 (2006)
- CONTRACTORS**
- Staff is ultimately responsible for the work undertaken, or not undertaken, by its contractors; LBP-06-8, 63 NRC 241 (2006)
- COST-BENEFIT ANALYSES**
- although economic benefits are properly considered in an environmental impact statement, NEPA does not transform financial costs and benefits into environmental costs and benefits; CLI-06-19, 63 NRC 19 (2006)
- COUNCIL ON ENVIRONMENTAL QUALITY**
- although CEQ regulations are not binding on the NRC when the agency has not expressly adopted them, they are entitled to considerable deference; LBP-06-8, 63 NRC 241 (2006)
- regulations require that an agency environmental impact statement address both direct and indirect, or secondary, effects of an action; LBP-06-8, 63 NRC 241 (2006)
- CRIMINAL PROCEEDING**
- although the civil discovery process could lead to the tainting of evidence in a criminal case and to the defendant's obtaining access to evidence that would provide him an unfair advantage over the government, the moving party must provide some practical applicability to the particular circumstances of the case in order for it to obtain the delay sought; LBP-06-13, 63 NRC 523 (2006)
- the party supporting abeyance of an enforcement proceeding based on the pendency of a criminal case involving the same facts carries the burden of proof and must make at least some showing of potential detrimental effect on the criminal case; CLI-06-12, 63 NRC 495 (2006)
- CRITICALITY**
- in theory, a facility operator could have an inadvertent criticality, but still be in compliance with the dose limits; LBP-06-17, 63 NRC 747 (2006)
- CRITICALITY CONTROL**
- although not legally binding, Staff guidance documents provide further information about the content of the integrated safety analysis summary and how an applicant can comply with criticality safety regulations; LBP-06-17, 63 NRC 747 (2006)
- applicant must limit, through application of engineered and/or administrative controls, the risk of credible high-consequence and intermediate-consequence events so as to make them highly unlikely, or to make their consequences less severe than certain established dose and exposure limits; LBP-06-17, 63 NRC 747 (2006)
- applicant must provide documentation of its compliance with the performance requirements of section 70.61 in its integrated safety analysis summary; LBP-06-17, 63 NRC 747 (2006)
- design of new facilities must adhere to the double contingency principle; LBP-06-17, 63 NRC 747 (2006)
- each engineered or administrative criticality control/control system must be designated an item relied on for safety; LBP-06-17, 63 NRC 747 (2006)
- under the double contingency principle, process designs should incorporate sufficient factors of safety to require at least two unlikely, independent, and concurrent changes in process conditions before a criticality accident is possible; LBP-06-17, 63 NRC 747 (2006)
- uranium enrichment facility applicants must identify and assess all credible accident sequences and identify appropriate mitigation measures, commonly referred to as items relied on for safety, to prevent or mitigate the consequences of such accidents; LBP-06-17, 63 NRC 747 (2006)
- CURRENT LICENSING BASIS**
- compliance with the CLB is mandatory unless the licensing basis is properly changed or the licensee is formally excused by the NRC from compliance; LBP-06-16, 63 NRC 737 (2006)
- licensee's written commitments that are docketed and in effect constitute part of the CLB, which is the set of NRC requirements applicable to a specific plant; LBP-06-16, 63 NRC 737 (2006)
- DEADLINES**
- decommissioning plans must be submitted to the NRC within 12 months of notifying the NRC that the license has expired, licensee has decided to permanently cease principal activities at the site, or no

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principal activities under the license have been conducted for 24 months at the site or in any separate building or outdoor area that contains residual radioactivity; LBP-06-6, 63 NRC 167 (2006)

motions be filed no more than 10 days after the occurrence or circumstance from which the motion arises; CLI-06-2, 63 NRC 9 (2006)

given the significant effort involved in identifying new information, assembling the required expertise, and then drafting a contention that satisfies section 2.309(f)(1), it would be inappropriate to impose the very short 10-day rule on the filing of new contentions; LBP-06-14, 63 NRC 568 (2006)

DECISIONS

See also Licensing Board Decisions; Record of Decision

DECOMMISSIONING

a memorandum of understanding is adequate to demonstrate the plausibility of applicant's deconversion strategy; LBP-06-15, 63 NRC 591 (2006)

a plausible strategy for private conversion of depleted uranium tails does not mean a definite or certain strategy, to include completion of all necessary contractual arrangements, but it must represent more than mere speculation; LBP-06-15, 63 NRC 591 (2006)

transfer of depleted uranium from enrichment operations to DOE for deconversion and disposal constitutes a plausible strategy for dispositioning; LBP-06-15, 63 NRC 591 (2006)

DECOMMISSIONING COSTS

a finding that a particular strategy is plausible is a necessary precursor to a finding that a cost estimate is documented and reasonable; LBP-06-15, 63 NRC 591 (2006)

applicant is not required, as a basis for its initial decommissioning funding cost estimate, to make projections or otherwise speculate about what events may or may not occur in the distant future; LBP-06-15, 63 NRC 591 (2006)

applicant must demonstrate a "plausible strategy" for dispositioning depleted uranium waste to provide a foundation upon which to build reasonable cost estimates for various elements related to ultimate decommissioning of the proposed facility; LBP-06-15, 63 NRC 591 (2006)

applicant may provide estimates for each of the elements of its decommissioning funding plan by obtaining estimates of the actual cost of providing a service from experienced third parties; LBP-06-15, 63 NRC 591 (2006)

cost of constructing and operating a deconversion facility may be based on prior experience with a similar facility, but such estimates must include the entirety of expected costs to the applicant or a third party by, for example, providing a thorough analysis such as would typically be developed and used for any new project; LBP-06-15, 63 NRC 591 (2006)

cost of implementation of a particular strategy has no bearing upon whether any particular strategy is technically feasible; LBP-06-15, 63 NRC 591 (2006)

DOE cost estimates represent an arm's-length, third-party estimate of the cost of doing business, albeit in an instance when the party offering the estimate is statutorily bound to provide that service; LBP-06-15, 63 NRC 591 (2006)

in estimating labor costs for its financial assurance plan relative to its proposed uranium mining operation, applicant is entitled to draw upon its prior experience in that field as a basis for its cost estimates; LBP-06-15, 63 NRC 591 (2006)

neither an intervenor nor an applicant/licensee nor the NRC has the authority to challenge or direct DOE's estimates of the fees it will charge to a uranium enrichment facility that requests DOE to disposition its depleted uranium waste; LBP-06-15, 63 NRC 591 (2006)

NUREG-1757 sets forth the minimum criteria that a cost estimate must meet before the Staff can find it acceptable; LBP-06-15, 63 NRC 591 (2006)

Staff reviews the financial assurance mechanisms specified in an applicant's decommissioning funding plan to determine whether the proposed mechanisms are acceptable and to ensure that the certification specifies the correct amount of financial assurance and attests compliance with the appropriate regulatory requirements; LBP-06-15, 63 NRC 591 (2006)

to provide a reliable estimate of the costs of deconverting depleted uranium from enrichment operations, applicant can follow one of two paths; LBP-06-15, 63 NRC 591 (2006)

triennial adjustments are intended to account for changes in a licensee's cost estimates regardless of the cause, and to ensure that adequate financial assurance is provided by the licensee at any given time; LBP-06-15, 63 NRC 591 (2006)

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whether an applicant has presented a plausible strategy, although related to disposition costs, is an inquiry distinct from and precedent to the question of the adequacy of an applicant's dispositioning cost estimates; LBP-06-15, 63 NRC 591 (2006)

DECOMMISSIONING FUNDING

a surety bond must be funded in an amount greater than or equal to the decommissioning cost estimate set forth in the licensee's decommissioning funding plan; LBP-06-17, 63 NRC 747 (2006)

applicant may provide financial assurance by prepayment of funds into a segregated account prior to the start of facility operations, a surety method, insurance, or other guarantee method, or annual deposits into a segregated account coupled with a surety method or insurance, whereby the surety value decreases over time by the amount accrued in the segregated account; LBP-06-17, 63 NRC 747 (2006)

cost estimates provided relative to the DOE "plausible strategy" are sufficiently reliable to provide the basis for an initial estimate of the portion of decommissioning funding associated with disposition of depleted uranium waste; LBP-06-15, 63 NRC 591 (2006)

surety bonds must be directly payable to an acceptable standby trust that will be used to fund decommissioning if the licensee defaults on its decommissioning obligation; LBP-06-17, 63 NRC 747 (2006)

surety bonds must either be open-ended or written for a specified term subject to automatic renewal, and must specify that the full face value will be automatically paid to the NRC prior to expiration if the licensee does not provide an acceptable mechanism within a specified period of time; LBP-06-17, 63 NRC 747 (2006)

surety bonds must remain in effect until license termination; LBP-06-17, 63 NRC 747 (2006)

DECOMMISSIONING FUNDING PLANS

a DFP ensures that an applicant has considered the decommissioning activities that may be required at the proposed facility over time, has presented a credible, site-specific cost estimate for conducting those activities, and has provided the NRC with financial assurance to cover those estimated costs should a third party have to take responsibility for facility decommissioning; LBP-06-15, 63 NRC 591 (2006)

a DFP must contain a cost estimate for decommissioning and a description of the method of assuring funds for decommissioning, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility, at least triennially; LBP-06-15, 63 NRC 591 (2006)

an applicant seeking a license to construct and operate a uranium enrichment facility must submit a proposed DFP with its license application; LBP-06-15, 63 NRC 591 (2006)

applicant can rely on public statements of market participants regarding plans to close old enrichment facilities or open new ones; LBP-06-15, 63 NRC 591 (2006)

applicant for a uranium enrichment facility is required to provide NRC Staff with a site-specific estimate of the costs for decommissioning the facility, and a description and certification of the means by which funds for decommissioning will be assured; LBP-06-17, 63 NRC 747 (2006)

applicant must adjust its cost estimates and associated financial assurance levels at least once every 3 years; LBP-06-17, 63 NRC 747 (2006)

applicant must submit a certification that financial assurance for decommissioning the facility has been provided in an amount equal to the decommissioning cost estimate, as well as a signed original or appropriate duplicate of the funding instrument whereby the applicant will provide financial assurance; LBP-06-15, 63 NRC 591 (2006)

financial assurance may be provided for decommissioning in the case of a private applicant by prepayment into a segregated account prior to start of facility operations, a surety or other guarantee method, or by annual deposits into an external sinking fund coupled with a surety method whereby the surety value decreases over time by the amount accrued in the sinking fund; LBP-06-15, 63 NRC 591 (2006)

initial cost estimates must encompass foreseeable activities associated with decommissioning, including radioactive waste disposal, and must present a reasonably accurate estimate of the direct and indirect costs involved in decommissioning under routine facility conditions; LBP-06-15, 63 NRC 591 (2006)

licensing boards are not to be involved simply in "formalistic" redrafting of plans; LBP-06-15, 63 NRC 591 (2006)

the purpose of the financial assurance requirement is to provide reasonable assurance that adequate funds will be available, through appropriate mechanisms, for facility decommissioning should a licensee be unable or unwilling to complete decommissioning; LBP-06-17, 63 NRC 747 (2006)

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the purpose of the triennial adjustment of cost estimates is to help ensure funding for decommissioning will not become inadequate as a result of changing disposal prices or other factors; LBP-06-17, 63 NRC 747 (2006)

DECOMMISSIONING PLANS

a DP must include an updated, detailed cost estimate for decommissioning, a comparison of that estimate with the amount of funds presently set aside for decommissioning, and a plan for assuring the availability of adequate funds to complete decommissioning activities; LBP-06-15, 63 NRC 591 (2006)

at least one financial assurance mechanism, including supporting documentation, must be specified, and the Staff will again review it for adequacy; LBP-06-15, 63 NRC 591 (2006)

licensees are required to submit plans to the NRC if required by license condition or if the procedures and activities necessary to carry out decommissioning have not been previously approved by the Commission and these procedures could increase potential health and safety impacts to workers or to the public; LBP-06-6, 63 NRC 167 (2006)

plans must be submitted to the NRC within 12 months of notifying the NRC that the license has expired, licensee has decided to permanently cease principal activities at the site, or no principal activities under the license have been conducted for 24 months at the site or in any separate building or outdoor area that contains residual radioactivity; LBP-06-6, 63 NRC 167 (2006)

under certain conditions, the Commission may approve an alternative schedule for the submittal of a plan; LBP-06-6, 63 NRC 167 (2006)

DEFERRAL OF HEARING

given the extended history of a proceeding and the nature of the license amendment sought, it can scarcely be thought that the deferral of a hearing to await the completion of the technical review might of itself adversely impact the public interest; LBP-06-6, 63 NRC 167 (2006)

the fact that petitioner's motion to defer a hearing to abide the completion of the Staff's technical review is unopposed can be taken as reflecting an implicit unanimous recognition that the fruits of the technical review might have a significant impact upon what issues might require exploration at a hearing; LBP-06-6, 63 NRC 167 (2006)

see also Abeyance of Proceeding

DEFINITIONS

a "land disposal facility" includes any land, building, and structures, and equipment that are intended to be used for the disposal of radioactive wastes, but does not include a geologic repository; LBP-06-8, 63 NRC 241 (2006)

a "material issue" is one in which resolution of the dispute would make a difference in the outcome of the licensing proceeding; LBP-06-10, 63 NRC 314 (2006)

a "near-surface disposal facility" is a land disposal facility in which radioactive waste is disposed of in or within the upper 30 meters of the earth's surface; LBP-06-8, 63 NRC 241 (2006)

"background radiation" is defined as naturally occurring radioactive material, including radon (except as a decay product of source or special nuclear material); LBP-06-1, 63 NRC 41 (2006)

"coordination" refers to the electric power utilities' practice of interchanging power and sharing responsibility for building new generating facilities to achieve economic benefits unattainable by an individual utility acting alone; CLI-06-2, 63 NRC 9 (2006)

"coordination services markets" are for the exchange of surplus electric power between utilities on a nonfirm basis and the joint and coordinated operation by utilities of their systems of generation and distribution, all with the purpose of achieving maximum efficiency and economies in their overall power supply operations; CLI-06-2, 63 NRC 9 (2006)

"distribution" refers generally to the transport of electricity by local distribution companies to the end users of the electricity (e.g., homes, shops, office buildings, factories); CLI-06-2, 63 NRC 9 (2006)

"naturally occurring radioactive material" consists of materials that contain primordial radioisotopes (e.g., uranium and its progeny) that are present naturally in rocks, soils, water, and minerals, and which are not regulated by the Commission; LBP-06-1, 63 NRC 41 (2006)

"tailings" are the remaining portion of a metal-bearing ore after some or all of such metal, such as uranium, has been extracted; LBP-06-1, 63 NRC 41 (2006)

"technologically enhanced naturally occurring radioactive material" is any naturally occurring material not subject to regulation under the Atomic Energy Act whose radionuclide concentrations or potential for

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human exposure have been increased above levels encountered in the natural state by human activities; LBP-06-1, 63 NRC 41 (2006)

“transmission services” refers to the transport of electricity on the wholesale market to local distribution companies; CLI-06-2, 63 NRC 9 (2006)

DELAY OF PROCEEDING

an indictment and failure to challenge the immediate effectiveness of an enforcement order count in favor of the government’s stay request because they reduce the likelihood of erroneous deprivation; LBP-06-13, 63 NRC 523 (2006)

an unsupported and unparticularized assertion that an enforcement proceeding should be delayed to protect DOJ’s pending criminal prosecution does not justify holding NRC’s parallel administrative proceeding in abeyance; LBP-06-13, 63 NRC 523 (2006)

five factors that need to be balanced when deciding whether to delay an enforcement proceeding are length of delay, reason for delay, prejudice to the recipient of the enforcement order, risk of erroneous deprivation, and recipient’s assertion of a right to a hearing; CLI-06-12, 63 NRC 495 (2006)

in witness-intensive cases, a proceeding can be held in abeyance only if the Staff can demonstrate an important government interest coupled with factors minimizing the risk of an erroneous deprivation; CLI-06-12, 63 NRC 495 (2006)

indeterminate length of the requested delay weighs against granting an abeyance because of potentially adverse effect on testimony; CLI-06-12, 63 NRC 495 (2006)

it is important to consider which party initiated the civil action and which party is seeking relief from its going forward; LBP-06-13, 63 NRC 523 (2006)

proponent must provide detailed and specific reasons demonstrating some type of cognizable harm would result absent that relief; LBP-06-13, 63 NRC 523 (2006)

under the erroneous deprivation factor, a defendant’s rejection of a prosecution offer that would have guaranteed him no prison time if he would admit to the acts alleged demonstrates that the defendant has some belief in his innocence; LBP-06-13, 63 NRC 523 (2006)

See also Abeyance of Proceeding

DELIBERATIVE PROCESS PRIVILEGE

a board has discretion to compel production of a document upon a finding that the need for the evidence outweighs the interests that support the privilege; LBP-06-3, 63 NRC 85 (2006)

a showing of relevance alone is not sufficient for a party seeking a deliberative process privilege

document to demonstrate that its need for the document outweighs the need to protect the document; LBP-06-3, 63 NRC 85 (2006)

documents that contain the analysis, opinions, and recommendations of NRC Staff members regarding an applicant’s response to prior requests for additional information or the formulation of new RAIs are deliberative and thus may qualify for the privilege; LBP-06-3, 63 NRC 85 (2006)

in a proceeding involving the safety of a proposed 20% increase in the power of a nuclear power reactor, the seriousness of the litigation and the issues involved weigh in favor of disclosing deliberative process documents; LBP-06-3, 63 NRC 85 (2006)

in ruling on the qualified nature of deliberative process privilege, five factors are relevant in balancing the need for the documents against the government’s interest in nondisclosure; LBP-06-3, 63 NRC 85 (2006)

information must be both predecisional and deliberative; LBP-06-3, 63 NRC 85 (2006)

NRC Staff communications are factual in nature and are not protected by the deliberative process privilege when the communications summarize the procedural aspects of Staff projects or report on the status of Staff work; LBP-06-3, 63 NRC 85 (2006)

NRC Staff communications concerning the appropriate wording and scope of a potential license condition are deliberative and thus may qualify for the privilege; LBP-06-3, 63 NRC 85 (2006)

NRC Staff communications concerning whether a potential license condition should be imposed are deliberative and thus may qualify for the privilege; LBP-06-3, 63 NRC 85 (2006)

the fact that deliberative process privilege documents contain important new analyses that are relevant to admitted contentions weighs in favor of their disclosure; LBP-06-3, 63 NRC 85 (2006)

the imminent availability of Staff’s authoritative position on a subject that is discussed in deliberative process documents constitutes “other evidence” such that the immediate need for the documents does not outweigh the privilege; LBP-06-3, 63 NRC 85 (2006)

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when NRC Staff is a party in a proceeding and not merely an indifferent bystander to private-party litigation, the role of the government in the litigation weighs in favor of disclosure; LBP-06-3, 63 NRC 85 (2006)

DEPARTMENT OF ENERGY

DOE cost estimates represent an arm's-length, third-party estimate of the cost of doing business, albeit in an instance when the party offering the estimate is statutorily bound to provide that service; LBP-06-15, 63 NRC 591 (2006)

DOE must accept for dispositioning depleted uranium from a private uranium enrichment facility upon request of the facility operator or appropriate third party; LBP-06-15, 63 NRC 591 (2006)

neither an intervenor nor an applicant/licensee nor the NRC has the authority to challenge or direct DOE's estimates of the fees it will charge to a uranium enrichment facility that requests DOE to disposition its depleted uranium waste; LBP-06-15, 63 NRC 591 (2006)

DEPARTMENT OF JUSTICE

NRC generally defers to DOJ when it seeks a delay in NRC enforcement proceedings pending the conclusion of DOJ's own criminal investigations or proceedings; CLI-06-12, 63 NRC 495 (2006)

DEPLETED URANIUM

a literal reading of 10 C.F.R. 61.55(a)(6) renders DU a Class A waste, but the Part 61 rulemaking did not analyze the uranium enrichment waste stream; CLI-06-15, 63 NRC 687 (2006)

a plausible strategy for private conversion of DU tails does not mean a definite or certain strategy, to include completion of all necessary contractual arrangements, but it must represent more than mere speculation; LBP-06-15, 63 NRC 591 (2006)

DOE must accept for dispositioning, DU from a private uranium enrichment facility upon request of the facility operator or appropriate third party; LBP-06-15, 63 NRC 591 (2006)

neither an intervenor nor an applicant/licensee nor the NRC has the authority to challenge or direct DOE's estimates of the fees it will charge to a uranium enrichment facility that requests DOE to disposition its DU waste; LBP-06-15, 63 NRC 591 (2006)

some near-surface disposal facilities may not be capable of accepting large quantities of depleted uranium from enrichment operations, and dose pathway analyses should be performed on a site-specific basis to ensure compliance with Part 61, Subpart C; LBP-06-8, 63 NRC 241 (2006)

the appropriate state or federal regulatory authority, such as an Agreement State, will conduct any necessary site-specific evaluation to confirm that applicable radiological dose limits and standards for disposal of DU can be met at a particular site; CLI-06-15, 63 NRC 687 (2006)

DEPOSITIONS

opposing trial or litigation counsel may be deposed only if no other means exist to obtain the information, and the information sought is relevant and nonprivileged, and crucial to the preparation of the case; LBP-06-10, 63 NRC 314 (2006)

DESIGN

new facilities must provide for criticality control, including adherence to the double contingency principle; LBP-06-17, 63 NRC 747 (2006)

under the double contingency principle, process designs should incorporate sufficient factors of safety to require at least two unlikely, independent, and concurrent changes in process conditions before a criticality accident is possible; LBP-06-17, 63 NRC 747 (2006)

when reviewing a license application filed by a private applicant, NRC may appropriately accord substantial weight to the preferences of the applicant and/or sponsor and should take into account the needs and goals of the parties involved in the application; CLI-06-10, 63 NRC 451 (2006)

DISCOVERY

a non-expert witness who was identified as the source of information but who had been removed from applicant's witness list could have been subjected to discovery and compelled to provide testimony before the board; LBP-06-15, 63 NRC 591 (2006)

a showing of relevance alone is not sufficient for a party seeking a deliberative process privilege document to demonstrate that its need for the document outweighs the need to protect the document; LBP-06-3, 63 NRC 85 (2006)

civil discovery can lead to perjury in the criminal case, by enabling a defendant to tailor his testimony, and that of his confederates, to jibe with, or to work around, what he learns about the state of the government's knowledge; LBP-06-13, 63 NRC 523 (2006)

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- deliberative process privilege is a qualified privilege; LBP-06-3, 63 NRC 85 (2006)
- deliberative process privilege requires that the information be both predecisional and deliberative; LBP-06-3, 63 NRC 85 (2006)
- in a proceeding involving the safety of a proposed 20% increase in the power of a nuclear power reactor, the seriousness of the litigation and the issues involved weigh in favor of disclosing deliberative process documents; LBP-06-3, 63 NRC 85 (2006)
- in ruling on the qualified nature of deliberative process privilege, five factors are relevant in balancing the need for the documents against the government's interest in nondisclosure; LBP-06-3, 63 NRC 85 (2006)
- it is an abuse of the adjudicatory process to use a motion for summary disposition as a subterfuge for the filing of interrogatories, requests for admission, or other discovery; LBP-06-5, 63 NRC 116 (2006)
- natural predeposition release is distinguished from particularized, forceful intimidation involving threats of extra-deposition retaliation that could be communicated as part of the run-up to, or conduct of, the deposition; LBP-06-13, 63 NRC 523 (2006)
- serious concern about evidence tampering stems from the possibility that the defendant, after learning in a civil proceeding about the nature of government's evidence of his possible crime, would be able to alter evidence in his possession or control to provide a defense to the charges, or to undercut the evidence against him; LBP-06-13, 63 NRC 523 (2006)
- tampering is not a concern when the defendant has not been employed at the relevant organization for several years and the government has given no indication as to how the defendant might employ knowledge gained through civil discovery to alter paper documents or electronic files that he has no control over whatsoever and which the government has long-since obtained through its several-years-long investigation; LBP-06-13, 63 NRC 523 (2006)
- DISCOVERY AGAINST NRC STAFF**
- depositions of opposing trial or litigation counsel are permitted only if no other means exist to obtain the information, and the information sought is relevant and nonprivileged, and crucial to the preparation of the case; LBP-06-10, 63 NRC 314 (2006)
- documents that contain the analysis, opinions, and recommendations of NRC Staff members regarding an applicant's response to prior requests for additional information or the formulation of new RAIs are deliberative and thus may qualify for deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)
- NRC Staff communications are factual in nature and are not protected by the deliberative process privilege when the communications summarize the procedural aspects of Staff projects or report on the status of Staff work; LBP-06-3, 63 NRC 85 (2006)
- NRC Staff communications concerning the appropriate wording and scope of a potential license condition are deliberative and thus may qualify for the deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)
- NRC Staff communications concerning whether a potential license condition should be imposed are deliberative and thus may qualify for the deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)
- the fact that deliberative process privilege documents contain important new analyses that are relevant to admitted contentions weighs in favor of their disclosure; LBP-06-3, 63 NRC 85 (2006)
- the imminent availability of Staff's authoritative position on a subject that is discussed in deliberative process documents constitutes "other evidence" such that the immediate need for the documents does not outweigh the deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)
- when NRC Staff is a party in a proceeding and not merely an indifferent bystander to private-party litigation, the role of the government in the litigation weighs in favor of disclosure; LBP-06-3, 63 NRC 85 (2006)
- DOCUMENTARY MATERIAL**
- Class 1 covers information a party intends to rely upon in support of its position; CLI-06-5, 63 NRC 143 (2006)
- Class 2 material is material that the party in possession knows does not support its position; CLI-06-5, 63 NRC 143 (2006)
- Class 3 documentary materials are "reports and studies" prepared on behalf of potential parties to the proceeding that are relevant to the issues listed in the Topical Guidelines contained in Regulatory Guide 3.69 and must be relevant to the license application; CLI-06-5, 63 NRC 143 (2006)

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- drafts of the license application are not Class 1, Class 2, or Class 3 material under Subpart J, so the regulations do not require making draft license applications available on the Licensing Support Network; CLI-06-5, 63 NRC 143 (2006)
- material that falls within Class 1 or Class 2 is the underlying independent documentary material used (or not used if nonsupporting) by the Department of Energy in formulating its license application; CLI-06-5, 63 NRC 143 (2006)
- the distinction between "preliminary" and "circulated" drafts is a significant one in the Commission's Subpart J regulations; CLI-06-5, 63 NRC 143 (2006)
- the purpose of 10 C.F.R. 2.1003 is to define the availability of material, not to provide definitions of types of materials; CLI-06-5, 63 NRC 143 (2006)
- the threshold question in determining if certain items must be made available on the High-Level Waste Repository Licensing Support Network is whether the particular items fall within any of the three classes of documentary material; CLI-06-5, 63 NRC 143 (2006)
- to be considered "documentary material," a "basic licensing document" must still meet the definition of Class 3 documentary material; CLI-06-5, 63 NRC 143 (2006)
- DOCUMENTATION**
- applicant must provide documentation of its compliance with the performance requirements of section 70.61 in its integrated safety analysis summary; LBP-06-17, 63 NRC 747 (2006)
- DOSE LIMITS**
- in theory, a facility operator could have an inadvertent criticality, but still be in compliance with the dose limits; LBP-06-17, 63 NRC 747 (2006)
- performance objectives for a near-surface disposal facility require that the relevant licensing entity examine whether, at any particular time after active institutional controls are removed, the section 61.41 dose limitations will be met for an inadvertent intruder; LBP-06-8, 63 NRC 241 (2006)
- DOSE, RADIOLOGICAL**
- See Total Effective Dose Equivalent
- DOUBLE CONTINGENCY PRINCIPLE**
- process designs should incorporate sufficient factors of safety to require at least two unlikely, independent, and concurrent changes in process conditions before a criticality accident is possible; LBP-06-17, 63 NRC 747 (2006)
- DUE PROCESS**
- an NRC Staff decision to grant a power uprate license amendment does not leave intervenors without effective redress because the license amendment can be revoked or conditioned after a full hearing if the board determines that the license amendment should not have been granted; CLI-06-8, 63 NRC 235 (2006)
- granting a license amendment prior to a board decision does not circumvent intervenors' right to a hearing; CLI-06-8, 63 NRC 235 (2006)
- the right to hold specific private employment and to follow a chosen profession free from unreasonable governmental interference comes within the liberty and property concepts of the Fifth Amendment; LBP-06-13, 63 NRC 523 (2006)
- ECONOMIC EFFECTS**
- new evidence that potentially alters the financial cost-benefit analysis, but which does not significantly affect the physical environment, does not warrant supplementing the environmental impact statement; CLI-06-19, 63 NRC 19 (2006)
- EMBRITTLEMENT**
- reactor pressure vessel integrity is within the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)
- EMERGENCY PLANS**
- challenges to the implementing procedures for a reactor emergency plan are not material in a materials license proceeding; LBP-06-12, 63 NRC 403 (2006)
- licensees must have and follow emergency or abnormal event procedures, appropriate for the irradiation type, for a prolonged loss of electrical power; LBP-06-12, 63 NRC 403 (2006)
- licensees must have and follow emergency procedures for natural phenomena as appropriate for the geographical location of the facility; LBP-06-12, 63 NRC 403 (2006)

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EMERGENCY RESPONSE

shutting down or derating of a nuclear power plant during flooding is not warranted because emergency response organizations can implement protective actions if necessary, regardless of local severe weather conditions or other natural disasters coincident with an emergency; DD-06-2, 63 NRC 425 (2006)

EMPLOYMENT

the right to hold specific private employment and to follow a chosen profession free from unreasonable governmental interference comes within the liberty and property concepts of the Fifth Amendment; LBP-06-13, 63 NRC 523 (2006)

ENFORCEMENT ACTIONS

a government motion for an indefinite enforcement hearing delay must be denied when the government fails to show that the prompt conduct of the NRC hearing process would interfere with the government's prosecution of the criminal charges and when the subject of the order has shown that the delay would continue to deprive him of his chosen livelihood and its anticipated income; LBP-06-13, 63 NRC 523 (2006)

in determining whether there is good cause to delay a proceeding challenging an immediately effective license suspension order, NRC evaluates five factors; LBP-06-13, 63 NRC 523 (2006)

pendency of a criminal trial does not automatically toll the time for instituting a civil proceeding; LBP-06-13, 63 NRC 523 (2006)

ENFORCEMENT ORDERS

a challenge to an enforcement order in which the petitioner contends that the order needs strengthening is prohibited; LBP-06-12, 63 NRC 403 (2006)

ENFORCEMENT PROCEEDINGS

a stipulation or compromise is subject to approval by the designated presiding officer, who may order such adjudication of the issues as he may deem to be required in the public interest; LBP-06-18, 63 NRC 830 (2006)

although the civil discovery process could lead to the tainting of evidence in a criminal case and to the defendant's obtaining access to evidence that would provide him an unfair advantage over the government, the moving party must provide some practical applicability to the particular circumstances of the case in order for it to obtain the delay sought; LBP-06-13, 63 NRC 523 (2006)

assertion of hearing right and risk of erroneous deprivation generally are given less weight in deciding an abeyance motion unless the assertion was dilatory or perfunctory or the risk can be shown to be either quite high or vanishingly low; LBP-06-13, 63 NRC 523 (2006)

delay of a proceeding is allowed only if the Staff can demonstrate an important government interest coupled with factors minimizing the risk of an erroneous deprivation; CLI-06-12, 63 NRC 495 (2006)

enforcement orders limit adjudication to whether the facts as stated in the order are true and whether the proposed sanction is supported by those facts; CLI-06-16, 63 NRC 708 (2006)

five factors that need to be balanced when deciding whether to delay a proceeding are length of delay, reason for delay, prejudice to the recipient of the enforcement order, risk of erroneous deprivation, and recipient's assertion of a right to a hearing; CLI-06-12, 63 NRC 495 (2006)

for purpose of interlocutory review, a board decision is "pervasive" and "unusual" when it stops the entire proceeding in its tracks for an indeterminate length of time; CLI-06-12, 63 NRC 495 (2006)

in considering the reason for a requested delay, it is important to consider which party initiated the civil action and which party is seeking relief from its going forward; LBP-06-13, 63 NRC 523 (2006)

tampering is not a concern when the defendant has not been employed at the relevant organization for several years and the government has given no indication as to how the defendant might employ knowledge gained through civil discovery to alter paper documents or electronic files that he has no control over whatsoever and which the government has long-since obtained through its several-years-long investigation; LBP-06-13, 63 NRC 523 (2006)

the critical issues to be determined when deciding a motion for delay involve "relative harm," that is, whether and to what extent movant has shown that not granting a delay will harm it versus whether and to what extent granting that same delay will harm the movant's opponent; LBP-06-13, 63 NRC 523 (2006)

the party requesting a delay must provide detailed and specific reasons demonstrating some type of cognizable harm would result absent that relief; LBP-06-13, 63 NRC 523 (2006)

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when evaluating whether a settlement is in the public interest, four factors are considered; LBP-06-18, 63 NRC 830 (2006)

when the party opposing a stay motion does not express undue concern that delay will diminish the quality of the evidence, that possibility may be put aside as nonspecific and not credited as prejudicing the subject of the order; LBP-06-13, 63 NRC 523 (2006)

ENVIRONMENTAL ANALYSIS

a Staff determination that certain scenarios, such as Part 61 intruder scenarios, are so unlikely as to fall outside the scope of the Staff's NEPA review is a proper exercise of NEPA's rule of reason; LBP-06-8, 63 NRC 241 (2006)

absent particular circumstances for excluding intruder scenarios in evaluating compliance with the Part 61 regulations, they must be considered by the licensing entity at the time of initial licensing or any subsequent license amendment; LBP-06-8, 63 NRC 241 (2006)

agencies have considerable discretion in determining the extent to which a particular subject is analyzed, and may decline to examine remote and speculative or inconsequentially small impacts; LBP-06-8, 63 NRC 241 (2006)

an agency environmental impact statement must address both direct and indirect, or secondary, effects of an action; LBP-06-8, 63 NRC 241 (2006)

an agency must affirmatively provide a reasoned explanation of the applicability of a categorical exclusion when special circumstances are alleged; LBP-06-4, 63 NRC 99 (2006)

cumulative impacts analysis looks to whether a new impact is significantly enhanced by already existing effects; LBP-06-1, 63 NRC 41 (2006)

location of an irradiator may be a circumstance in which the categorical exclusions in 10 C.F.R. 51.22(b) might not apply; LBP-06-4, 63 NRC 99 (2006)

NEPA imposes procedural restraints on agencies, requiring that they take a "hard look" at the environmental impacts of a proposed action and reasonable alternatives to that action; LBP-06-8, 63 NRC 241 (2006)

secondary or indirect consequences of disposal of the waste generated by a facility cannot, and need not for the purposes of satisfying the agency's NEPA obligation, be examined with particularity when a specific disposal site has not yet been identified; LBP-06-8, 63 NRC 241 (2006)

Staff is ultimately responsible for the work undertaken, or not undertaken, by its contractors; LBP-06-8, 63 NRC 241 (2006)

the appropriate state or federal regulatory authority, such as an Agreement State, will conduct any necessary site-specific evaluation to confirm that applicable radiological dose limits and standards for disposal of depleted uranium can be met at a particular site; CLI-06-15, 63 NRC 687 (2006)

ENVIRONMENTAL ASSESSMENT

contentions asserting that the risks associated with terrorist attacks require that the agency prepare an environmental assessment or an environmental impact statement are outside the scope of agency NEPA review and are inadmissible; LBP-06-4, 63 NRC 99 (2006)

ENVIRONMENTAL EFFECTS

all federal agencies must apply a systematic, interdisciplinary approach that will ensure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking that may have an impact on the human environment; LBP-06-17, 63 NRC 747 (2006)

cumulative impacts analysis looks to whether a new impact is significantly enhanced by already existing effects; LBP-06-1, 63 NRC 41 (2006)

direct effects are those caused by, and occurring at the same time and place as, the federal action, whereas indirect effects are caused by the action at a later time or more distant place, yet still are reasonably foreseeable; LBP-06-8, 63 NRC 241 (2006)

NEPA requires that only reasonably foreseeable indirect environmental effects of a proposed licensing action be considered; CLI-06-15, 63 NRC 687 (2006)

ENVIRONMENTAL IMPACT STATEMENT

a draft or final EIS is not considered deficient per se simply because its various NEPA findings do not include an explanation that is sufficient on its face to enable independent verification of any scientific results that underlie those findings; LBP-06-9, 63 NRC 289 (2006)

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- a supplement is needed where new information raises new concerns of sufficient gravity such that another, formal in-depth look at the environmental consequences of the proposed action is necessary; CLI-06-19, 63 NRC 19 (2006)
- agencies must consult with and obtain the comments of any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved; LBP-06-17, 63 NRC 747 (2006)
- an agency is not required to discuss indirect effects it considers remote or speculative; LBP-06-8, 63 NRC 241 (2006)
- an agency must address both direct and indirect, or secondary, effects of an action; LBP-06-8, 63 NRC 241 (2006)
- contentions asserting that the risks associated with terrorist attacks require that the agency prepare an environmental assessment or an environmental impact statement are outside the scope of agency NEPA review and are inadmissible; LBP-06-4, 63 NRC 99 (2006)
- federal agencies must address the environmental impact, any unavoidable adverse impacts, alternatives to the proposed action, the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources that might result from the proposed action; LBP-06-17, 63 NRC 747 (2006)
- federal agencies must study, develop, and describe appropriate alternatives to the recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; LBP-06-17, 63 NRC 747 (2006)
- for NEPA purposes, the "major federal action" triggering the EIS is issuance of the license, not adjudication of the license; CLI-06-19, 63 NRC 19 (2006)
- in preparing an EIS, Staff can rely upon the environmental analyses in another agency's EIS regarding environmental impacts; LBP-06-9, 63 NRC 289 (2006)
- new evidence that potentially alters the financial cost-benefit analysis, but which does not significantly affect the physical environment, does not warrant supplementing the EIS; CLI-06-19, 63 NRC 19 (2006)
- Staff's draft and final EISs are to include a statement that will briefly describe and specify the need for the proposed action; LBP-06-17, 63 NRC 747 (2006)
- See also Final Environmental Impact Statement; Supplemental Environmental Impact Statement
- ENVIRONMENTAL ISSUES**
- Category 2 issues involve environmental impact severity levels that might differ significantly from one plant to another or impacts for which additional plant-specific mitigation measures should be considered; LBP-06-10, 63 NRC 314 (2006)
- in a license renewal proceeding, petitioners must demonstrate that an issue focuses on the potential impacts of an additional 20 years of nuclear power plant operation, not on everyday operational issues; CLI-06-4, 63 NRC 32 (2006)
- in an uncontested uranium enrichment proceeding, a licensing board, without conducting a *de novo* evaluation of the application, will determine whether the application and record of the proceeding contain sufficient information to support licensing and whether the Staff's review of the application has been adequate; LBP-06-17, 63 NRC 747 (2006)
- petitioners are to file their NEPA contentions based on the applicant's environmental report, and, later, if the NRC Staff's draft or final environmental impact statement contains data or conclusions that differ significantly from the data or conclusions in the applicant's documents, petitioners may file new or amended contentions; CLI-06-15, 63 NRC 687 (2006)
- regardless of whether a uranium enrichment facility proceeding is contested or uncontested, a licensing board must consider three baseline NEPA issues; LBP-06-17, 63 NRC 747 (2006)
- ENVIRONMENTAL JUSTICE**
- an admissible contention must allege sufficiently specific disproportionate effects with a nexus to the physical environment, falling on low-income and minority communities; LBP-06-10, 63 NRC 314 (2006)
- ENVIRONMENTAL REPORT**
- discussion of unaffected areas or sites is not required by 10 C.F.R. 51.45(b); CLI-06-9, 63 NRC 433 (2006)

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license renewal applicants may refer to and adopt the generic environmental impact findings found in 10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1, for all Category 1 issues; LBP-06-10, 63 NRC 314 (2006)

ENVIRONMENTAL REVIEW

an agency has discretion to rely on data, analyses, or reports prepared by persons or entities other than agency staff, including competent and responsible state authorities; LBP-06-8, 63 NRC 241 (2006)

an agency only needs to account for those impacts that have some likelihood of occurring or are reasonably foreseeable; LBP-06-8, 63 NRC 241 (2006)

Category 2 issues, for which an applicant must make a plant-specific analysis of environmental impacts in its environmental report and the NRC Staff must prepare a supplemental environmental impact statement, ordinarily are deemed to be within the scope of license renewal proceedings; LBP-06-7, 63 NRC 188 (2006)

environmental issues that might otherwise be relevant to license renewal shall be resolved generically for all plants and thus are beyond the scope of a license renewal hearing; LBP-06-7, 63 NRC 188 (2006)

NEPA does not call for certainty or precision, but an estimate of anticipated (not unduly speculative) impacts; LBP-06-8, 63 NRC 241 (2006)

EVACUATION

shutting down or derating of a nuclear power plant is not warranted during flooding because the state has established and coordinated potential alternative evacuation routes in the unlikely event of an emergency at the nuclear power plant; DD-06-2, 63 NRC 425 (2006)

EVIDENCE

contention admissibility rules require a concise statement of the alleged facts or expert opinions that support petitioner's position, but does not require the submission of an expert opinion or require that an expert opinion be submitted in the form of admissible evidence; LBP-06-7, 63 NRC 188 (2006)

saying the government needs to demonstrate the potential for the tainting of evidence is not the equivalent of insisting that the government establish that perjury or intimidation would necessarily take place; LBP-06-13, 63 NRC 523 (2006)

tampering is not a concern when the defendant has not been employed at the relevant organization for several years and the government has given no indication as to how the defendant might employ knowledge gained through civil discovery to alter paper documents or electronic files that he has no control over whatsoever and which the government has long-since obtained through its several-years-long investigation; LBP-06-13, 63 NRC 523 (2006)

EVIDENCE, HEARSAY

a non-expert's testimony based on what he was told by an anonymous expert may be stricken as unreliable hearsay; LBP-06-15, 63 NRC 591 (2006)

EXAMINATION

See Reactor Operator Examinations

EXEMPTIONS

a request for an exemption from a particular regulatory provision does not render a license application deficient; CLI-06-10, 63 NRC 451 (2006)

an agency must affirmatively provide a reasoned explanation of the applicability of a categorical exclusion when special circumstances are alleged; LBP-06-4, 63 NRC 99 (2006)

because a petitioner's military service in Iraq interrupted his operator license testing, he is exempted from the 6-month waiting period required for a third application for a reactor operator license, contingent upon participation in licensed operator requalification training program; LBP-06-2, 63 NRC 80 (2006)

location of an irradiator may be a circumstance in which the categorical exclusions in 10 C.F.R. 51.22(b) might not apply; LBP-06-4, 63 NRC 99 (2006)

NRC may grant an exemption from a particular regulatory provision if it will not threaten the common defense and security or endanger life or property and is otherwise in the public interest; CLI-06-10, 63 NRC 451 (2006)

FEDERAL RULES OF CRIMINAL PROCEDURE

the disclosures necessary for a fair balance between criminal defendants' and prosecutors' interests relative to delay of a civil proceeding pending completion of the criminal proceeding are described; CLI-06-12, 63 NRC 495 (2006)

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FINAL ENVIRONMENTAL IMPACT STATEMENT

- a record of decision must accompany any Commission decision on any action for which an FEIS has been prepared; LBP-06-8, 63 NRC 241 (2006)
- in conducting its environmental review, an agency has discretion to rely on data, analyses, or reports prepared by persons or entities other than agency staff, including competent and responsible state authorities; LBP-06-8, 63 NRC 241 (2006)
- when a board decision supplements or differs from the findings of the Staff as set forth in its FEIS, the FEIS is deemed modified by the board's decision to that extent; LBP-06-8, 63 NRC 241 (2006)

FINANCIAL ASSURANCE

- a finding that a particular strategy is plausible is a necessary precursor to a finding that a cost estimate is documented and reasonable; LBP-06-15, 63 NRC 591 (2006)
- a plausible strategy for private conversion of depleted uranium tails does not mean a definite or certain strategy, to include completion of all necessary contractual arrangements, but it must represent more than mere speculation; LBP-06-15, 63 NRC 591 (2006)
- a surety bond must be funded in an amount greater than or equal to the decommissioning cost estimate set forth in the licensee's decommissioning funding plan; LBP-06-17, 63 NRC 747 (2006)
- an applicant must demonstrate a "plausible strategy" for dispositioning depleted uranium waste to provide a foundation upon which to build reasonable cost estimates for various elements related to ultimate decommissioning of the proposed facility; LBP-06-15, 63 NRC 591 (2006)
- an applicant seeking a license to construct and operate a uranium enrichment facility must submit a proposed decommissioning funding plan with its license application; LBP-06-15, 63 NRC 591 (2006); LBP-06-17, 63 NRC 747 (2006)
- applicant may provide estimates for each of the elements of its decommissioning funding plan by obtaining estimates of the actual cost of providing a service from experienced third parties; LBP-06-15, 63 NRC 591 (2006)
- applicant must adjust its cost estimates and associated financial assurance levels at least once every 3 years; LBP-06-17, 63 NRC 747 (2006)
- applicant must submit a certification with its decommissioning funding plan that financial assurance for decommissioning the facility has been provided in an amount equal to the decommissioning cost estimate, as well as a signed original or appropriate duplicate of the funding instrument whereby the applicant will provide financial assurance; LBP-06-15, 63 NRC 591 (2006)
- cost of constructing and operating a deconversion facility may be based on prior experience with a similar facility, but such estimates must include the entirety of expected costs to the applicant or a third party by, for example, providing a thorough analysis such as would typically be developed and used for any new project; LBP-06-15, 63 NRC 591 (2006)
- decommissioning funding plans must contain a cost estimate for decommissioning and a description of the method of assuring funds for decommissioning, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility, at least triennially; LBP-06-15, 63 NRC 591 (2006)
- for decommissioning funding, a private applicant may use prepayment into a segregated account prior to start of facility operations, a surety or other guarantee method, or annual deposits into an external sinking fund coupled with a surety method whereby the surety value decreases over time by the amount accrued in the sinking fund; LBP-06-15, 63 NRC 591 (2006); LBP-06-17, 63 NRC 747 (2006)
- in estimating labor costs for its proposed uranium mining operation, an applicant is entitled to draw upon its prior experience in that field as a basis for its cost estimates; LBP-06-15, 63 NRC 591 (2006)
- Staff reviews the mechanisms specified in an applicant's decommissioning funding plan to determine whether the proposed mechanisms are acceptable and to ensure that the certification specifies the correct amount of financial assurance and attests compliance with the appropriate regulatory requirements; LBP-06-15, 63 NRC 591 (2006)
- surety bonds must be directly payable to an acceptable standby trust that will be used to fund decommissioning if the licensee defaults on its decommissioning obligation; LBP-06-17, 63 NRC 747 (2006)
- surety bonds must either be open-ended or written for a specified term subject to automatic renewal, and must specify that the full face value will be automatically paid to the NRC prior to expiration if the

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- licensee does not provide an acceptable mechanism within a specified period of time; LBP-06-17, 63 NRC 747 (2006)
- surety bonds must remain in effect until license termination; LBP-06-17, 63 NRC 747 (2006)
- the purpose of the triennial adjustment of cost estimates for decommissioning funding is to help ensure that funding for decommissioning will not become inadequate as a result of changing disposal prices or other factors; LBP-06-17, 63 NRC 747 (2006)
- transfer of depleted uranium from enrichment operations to DOE for deconversion and disposal constitutes a plausible strategy for dispositioning; LBP-06-15, 63 NRC 591 (2006)
- whether an applicant has presented a plausible strategy, although related to disposition costs, is an inquiry distinct from and precedent to the question of the adequacy of an applicant's dispositioning cost estimates; LBP-06-15, 63 NRC 591 (2006)
- FINDINGS OF FACT**
- when a presiding officer has reviewed an extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed; CLI-06-1, 63 NRC 1 (2006)
- FIRE BARRIERS**
- evaluation of the fire protection properties of Thermo-Lag, Hemyc, and Kaowool materials and licensees' responses to those findings are discussed; DD-06-1, 63 NRC 133 (2006)
- FIRE PROTECTION SYSTEMS**
- evaluation of the fire protection properties of Thermo-Lag, Hemyc, and Kaowool fire barrier materials and licensees' responses to those findings are discussed; DD-06-1, 63 NRC 133 (2006)
- licensees of plants licensed to operate before January 1, 1979, must comply with fire protection requirements specified in 10 C.F.R. Part 50, Appendix R, and licensees of plants licensed to operate after January 1, 1979, must comply with the approved fire protection program incorporated into their operating license; DD-06-1, 63 NRC 133 (2006)
- FIRE SAFETY**
- the manner in which residual heat from an electrical cabinet fire is dissipated, and the potential for reignition of an electrical cabinet fire after it is extinguished with an inert gas and the cabinet is opened before the residual heat has dissipated, is discussed; LBP-06-17, 63 NRC 747 (2006)
- FLOODS**
- shutting down or derating of a nuclear power plant is not warranted because the state has established and coordinated potential alternative evacuation routes in the unlikely event of an emergency at the nuclear power plant; DD-06-2, 63 NRC 425 (2006)
- GENERIC ISSUES**
- introduction of issues that are not unique to any given reactor are inappropriate in an individual reactor licensing proceeding absent evidence that the generic issue applies to that particular proceeding; LBP-06-11, 63 NRC 391 (2006)
- GENERIC SAFETY ISSUES**
- Category 1 issues in Appendix B to Subpart A of Part 51 are not within the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)
- HEARING RIGHTS**
- assertion of a hearing right weighs against granting abeyance of a proceeding, but this factor is, by its nature, merely procedural, and consequently is of little importance when balancing real-life equities; CLI-06-12, 63 NRC 495 (2006)
- granting a license amendment prior to a board decision does not circumvent intervenors' right to a hearing; CLI-06-8, 63 NRC 235 (2006)
- intervenors do not have a right to an adjudicatory hearing on future determinations that may be made under license conditions; CLI-06-1, 63 NRC 1 (2006)
- NRC is required to provide a hearing upon the request of any person whose interest may be affected by the proceeding; LBP-06-10, 63 NRC 314 (2006)
- NRC Staff verification that a licensee complies with preapproved design or testing criteria is a highly technical inquiry not particularly suitable for hearing; CLI-06-1, 63 NRC 1 (2006)
- HEARINGS**
- See Deferral of Hearing

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HURRICANES

licensees must have and follow emergency procedures for natural phenomena as appropriate for the geographical location of the facility; LBP-06-12, 63 NRC 403 (2006)

HYDROGEN FLUORIDE

interaction of hot hydrofluoric acid with the aluminum fluoride layer on aluminum storage tubes in the case of significant water vapor intrusion is discussed; LBP-06-17, 63 NRC 747 (2006)

IMMEDIATE EFFECTIVENESS

an NRC Staff decision to grant a power uprate license amendment does not leave intervenors without effective redress because the license amendment can be revoked or conditioned after a full hearing if the board determines the license amendment should not have been granted; CLI-06-8, 63 NRC 235 (2006)

Staff is to issue its approval or denial of an application promptly once it completes its own review of the application, notwithstanding the pendency of any hearing; CLI-06-8, 63 NRC 235 (2006)

INCORPORATION BY REFERENCE

in conducting its environmental review, an agency has discretion to rely on data, analyses, or reports prepared by persons or entities other than agency staff, including competent and responsible state authorities; LBP-06-8, 63 NRC 241 (2006)

in preparing an EIS, Staff can rely upon the environmental analyses in another agency's EIS regarding environmental impacts; LBP-06-9, 63 NRC 289 (2006)

the record of decision may in fact incorporate by reference any material contained in the relevant final environmental impact statement; LBP-06-8, 63 NRC 241 (2006)

INFORMAL PROCEEDINGS

pleadings submitted by a petitioner acting *pro se* are not always expected to meet the same standards as pleadings drafted by lawyers, but late filing of documents is not condoned; LBP-06-14, 63 NRC 568 (2006)

INITIAL DECISIONS

the Commission has discretion to grant a petition for review, giving due weight to the existence of a substantial question with respect to any of the grounds listed in the Commission's regulations as potential justification; LBP-06-11, 63 NRC 483 (2006)

INJURY IN FACT

a threatened unwanted exposure to radiation, even a minor one, is sufficient to establish an injury; LBP-06-4, 63 NRC 99 (2006)

an injury may be either actual or threatened, but must lie arguably within the zone of interests protected by the statutes governing the proceeding; LBP-06-10, 63 NRC 314 (2006)

to demonstrate standing, a petitioner must show that it has suffered or will suffer a distinct and palpable harm that is within the zone of interests arguably protected by the governing statute and that this injury can fairly be traced to the challenged action; CLI-06-2, 63 NRC 9 (2006)

See also Irreparable Injury

INTEGRATED SAFETY ANALYSIS

although not legally binding, Staff guidance documents provide further information about the content of the ISA summary and how an applicant can comply with criticality safety regulations; LBP-06-17, 63 NRC 747 (2006)

applicant must evaluate its compliance with performance requirements regarding nuclear criticality safety; LBP-06-17, 63 NRC 747 (2006)

INTERVENTION

a petitioner must demonstrate standing and submit at least one admissible contention; LBP-06-10, 63 NRC 314 (2006)

for a petitioner to be admitted as a party in a materials license amendment proceeding, it must propose at least one admissible contention that meets the requirements of 10 C.F.R. 2.309(f)(1); LBP-06-6, 63 NRC 167 (2006)

NRC is required to provide a hearing upon the request of any person whose interest may be affected by the proceeding; LBP-06-10, 63 NRC 314 (2006)

INTERVENTION, DISCRETIONARY

a contention must meet certain specificity and basis requirements and must fall within the scope of the proceeding; CLI-06-16, 63 NRC 708 (2006)

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- a petitioner denied discretionary intervention could still participate as amicus curiae or as an expert witness; CLI-06-16, 63 NRC 708 (2006)
- although all six factors are examined regardless of the result on the critical first “sound record” factor, no NRC decision allowing discretionary intervention in the face of a negative finding on the “sound record” fact has occurred; CLI-06-16, 63 NRC 708 (2006)
- generalized expertise, even scientific eminence, is an insufficient substitute for particularized knowledge of the issues actually in dispute; CLI-06-16, 63 NRC 708 (2006)
- in balancing the six factors for discretionary hearing, assistance in developing a sound record is the most important; CLI-06-16, 63 NRC 708 (2006)
- in justifying such an extraordinary procedure, the board should identify the specific contributions that petitioners could offer; CLI-06-16, 63 NRC 708 (2006)
- in ruling on requests for discretionary intervention, NRC’s presiding officers and licensing boards traditionally consider the six factors of 10 C.F.R. 2.309(e)(1)-(2); CLI-06-16, 63 NRC 708 (2006)
- NRC has broad discretion to provide hearings or permit interventions in cases where these avenues of public participation would not be available as a matter of right; CLI-06-16, 63 NRC 708 (2006)
- petitioner must propose at least one admissible contention; CLI-06-16, 63 NRC 708 (2006)
- the “sound record” factor is foremost in importance in the balancing of six factors, but other factors, especially inappropriate broadening or delay of the proceeding, could overcome it; CLI-06-16, 63 NRC 708 (2006)
- the bar against corrective redrafting of contentions is particularly compelling in the context of a request for discretionary intervention because rewriting undermines the very basis for granting discretionary intervention, i.e., the petitioner’s demonstrated ability to contribute to the record; CLI-06-16, 63 NRC 708 (2006)
- the Commission may allow discretionary intervention to a person who does not meet standing requirements if there is reason to believe the person’s participation will make a valuable contribution to the proceeding and if a consideration of the other criteria on discretionary intervention shows that it is warranted; CLI-06-16, 63 NRC 708 (2006)
- the Commission routinely accords substantial deference to licensing boards on matters involving standing and credibility determinations, and thus does not lightly set aside a board’s grant of discretionary intervention; CLI-06-16, 63 NRC 708 (2006)
- the Commission will reverse a licensing board’s determination on discretionary intervention only if the board has abused its discretion; CLI-06-16, 63 NRC 708 (2006)
- the practice of granting or denying discretionary intervention should develop “not through precedent, but through attention to the concrete facts of particular situations; CLI-06-16, 63 NRC 708 (2006)
- the requirement to establish standing does not apply; CLI-06-16, 63 NRC 708 (2006)
- this practice is meant to ensure a sound adjudicatory record, not simply to provide a second representative to assist (allegedly) ill-represented parties; CLI-06-16, 63 NRC 708 (2006)
- when allowing this extraordinary action, boards are expected to set out specific findings on each of the six factors; CLI-06-16, 63 NRC 708 (2006)
- when balancing the six discretionary intervention factors, licensing boards must keep in mind that discretionary intervention is an extraordinary procedure; CLI-06-16, 63 NRC 708 (2006)
- INTERVENTION PETITIONS**
- an order denying a motion to reopen renders moot a petitioner’s request for leave to submit an amended petition to intervene; CLI-06-4, 63 NRC 32 (2006)
- in passing upon the question as to whether a petition should be granted, it is not the function of a licensing board to reach the merits of any contention contained therein; LBP-06-6, 63 NRC 167 (2006)
- the February 2004 revision of NRC procedural rules no longer permits the amendment and supplementation of petitions and the filing of contentions after the original filing of petitions; LBP-06-10, 63 NRC 314 (2006)
- INTERVENTION RULINGS**
- at the contention admissibility stage of a proceeding, a licensing board will not adjudicate merits-related issues; LBP-06-7, 63 NRC 188 (2006)
- IRRADIATOR**
- a design-based challenge involving a postulated cask drop on a sealed source is within the scope of, and material to, a licensing proceeding; LBP-06-12, 63 NRC 403 (2006)

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an agency must affirmatively provide a reasoned explanation of the applicability of a categorical exclusion when special circumstances are alleged; LBP-06-4, 63 NRC 99 (2006)
licensees must have and follow emergency or abnormal event procedures, appropriate for the irradiation type, for a prolonged loss of electrical power; LBP-06-12, 63 NRC 403 (2006)
location of an irradiation may be a circumstance in which the categorical exclusions in 10 C.F.R. 51.22(b) might not apply; LBP-06-4, 63 NRC 99 (2006)

IRREPARABLE INJURY

mere speculation concerning a nuclear accident does not satisfy the requirements for grant of a stay of effectiveness of a license amendment; CLI-06-8, 63 NRC 235 (2006)
See also Injury in Fact

LAW OF THE CASE

a prior decision should be followed unless it is clearly erroneous and its enforcement would work a manifest injustice, intervening controlling authority makes reconsideration appropriate, or substantially different evidence was adduced at a subsequent trial; LBP-06-11, 63 NRC 483 (2006)
legal determinations made on appeal in a case are controlling precedent, becoming the law of the case for all later decisions in the same case, with only limited exceptions; LBP-06-11, 63 NRC 483 (2006)
the decision of an appellate tribunal should ordinarily be followed in all subsequent phases of that case, provided that the particular question in issue was actually decided or decided by necessary implication; LBP-06-1, 63 NRC 41 (2006)
this doctrine is grounded in important considerations related to stability in the decisionmaking process, predictability of results, proper working relationships between trial and appellate courts, and judicial economy; LBP-06-11, 63 NRC 483 (2006)

LICENSE APPLICATIONS

drafts of the license application are not Class 1, Class 2, or Class 3 documentary material under Subpart J, so the regulations do not require making draft license applications available on the Licensing Support Network; CLI-06-5, 63 NRC 143 (2006)

LICENSE CONDITIONS

NRC Staff communications concerning the appropriate wording and scope are deliberative and thus may qualify for the deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)
NRC Staff communications concerning whether a potential license condition should be imposed are deliberative and thus may qualify for the deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)
post-hearing resolution of licensing issues must not be employed to obviate the basic findings prerequisite to a license, including a reasonable assurance that the facility can be operated without endangering the health and safety of the public; CLI-06-1, 63 NRC 1 (2006)

LICENSE RENEWAL APPLICATIONS

applicants may in their site-specific environmental reports refer to and adopt the generic environmental impact findings found in 10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1, for all Category 1 issues; LBP-06-10, 63 NRC 314 (2006)
the Commission shall determine whether or not the adverse environmental impacts of license renewal are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable; LBP-06-10, 63 NRC 314 (2006)

LICENSE RENEWAL PROCEEDINGS

a claim that the pads for storing spent fuel are defective is outside the scope of the proceeding; CLI-06-17, 63 NRC 727 (2006)
Category 2 issues, for which an applicant must make a plant-specific analysis of environmental impacts in its environmental report and the NRC Staff must prepare a supplemental environmental impact statement, ordinarily are deemed to be within the scope of license renewal proceedings; LBP-06-7, 63 NRC 188 (2006)
environmental issues that might otherwise be relevant to license renewal shall be resolved generically for all plants and thus are beyond the scope of a license renewal hearing; LBP-06-7, 63 NRC 188 (2006)
issues relating to a plant's current licensing basis are ordinarily beyond the scope of a license renewal review, because those issues already are monitored, reviewed, and commonly resolved as needed by ongoing regulatory oversight; LBP-06-7, 63 NRC 188 (2006)
NRC's public health and safety review ordinarily is limited to a review of the plant structures and components that will require an aging management review for the period of extended operation and the

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- plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; LBP-06-7, 63 NRC 188 (2006)
- petitioners must demonstrate that an issue focuses on the potential impacts of an additional 20 years of nuclear power plant operation, not on everyday operational issues; CLI-06-4, 63 NRC 32 (2006)
- See also Operating License Renewal Proceedings
- LICENSE RENEWALS
- See Operating License Renewal
- LICENSE TRANSFER PROCEEDINGS
- “transmission services” is a concept central to the determination of standing; CLI-06-2, 63 NRC 9 (2006)
- LICENSEE CHARACTER
- absent evidence to the contrary, a licensing board will not assume licensee will act in derogation of its formal commitments to the NRC Staff; LBP-06-7, 63 NRC 188 (2006)
- absent evidence to the contrary, it cannot be assumed that licensees will contravene NRC regulations; LBP-06-12, 63 NRC 403 (2006)
- LICENSEES
- compliance with the current licensing basis is mandatory unless the licensing basis is properly changed or the licensee is formally excused by the NRC from compliance; LBP-06-16, 63 NRC 737 (2006)
- written commitments that are docketed and in effect constitute part of the current licensing basis, which is the set of NRC requirements applicable to a specific plant; LBP-06-16, 63 NRC 737 (2006)
- LICENSING BOARD DECISIONS
- on appeal, the Commission usually defers to boards' fact-based decisions; CLI-06-12, 63 NRC 495 (2006)
- the precedential value of a decision that is not affirmed by the Commission is limited to its power to persuade; LBP-06-1, 63 NRC 41 (2006)
- when a board decision supplements or differs from the findings of the Staff as set forth in its final environmental impact statement, the FEIS is deemed modified by the board's decision to that extent; LBP-06-8, 63 NRC 241 (2006)
- when a hearing is held on a proposed action, the licensing board's initial decision on that action constitutes the record of decision; LBP-06-8, 63 NRC 241 (2006)
- LICENSING BOARDS
- a simple sufficiency review of uncontested issues should be conducted by boards; LBP-06-17, 63 NRC 747 (2006)
- contested and uncontested issues should be reviewed differently, with considerably more deference given to NRC Staff on uncontested issues; LBP-06-17, 63 NRC 747 (2006)
- in a mandatory hearing, a board's task is to constitute a check on the understanding of the NRC Staff; LBP-06-17, 63 NRC 747 (2006)
- in mandatory proceedings, boards should inquire whether the NRC Staff performed an adequate review and made findings with reasonable support in logic and fact; LBP-06-17, 63 NRC 747 (2006)
- in uncontested hearings, a board's focus should be on areas in which the Staff indicated that its prescriptive process was incomplete or was not followed, or instances when the board's review of the safety evaluation report and other safety-related documents led it to believe further exploration of a particular item was necessary; LBP-06-17, 63 NRC 747 (2006)
- regardless of whether a uranium enrichment facility proceeding is contested or uncontested, a board must consider three baseline NEPA issues; LBP-06-17, 63 NRC 747 (2006)
- when taking the extraordinary action of allowing discretionary intervention, boards are expected to set out specific findings on each of the six factors; CLI-06-16, 63 NRC 708 (2006)
- LICENSING BOARDS, AUTHORITY
- boards are authorized to impose additional requirements as part of a settlement; LBP-06-18, 63 NRC 830 (2006)
- boards are expected to examine cited materials to verify that they support a contention, but are not expected to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves; CLI-06-10, 63 NRC 451 (2006)
- boards may not make factual inferences on a petitioner's behalf; LBP-06-10, 63 NRC 314 (2006)
- boards may reframe contentions, following a determination of their admissibility, for purposes of clarity, succinctness, and a more efficient proceeding; CLI-06-16, 63 NRC 708 (2006)

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boards must not redraft inadmissible contentions to cure deficiencies and thereby render them admissible; CLI-06-16, 63 NRC 708 (2006)

in passing upon the question as to whether an intervention petition should be granted, it is not the function of a licensing board to reach the merits of any contention contained therein; LBP-06-6, 63 NRC 167 (2006); LBP-06-7, 63 NRC 188 (2006)

LICENSING BOARDS, JURISDICTION

compliance with regulations of other federal agencies, such as Environmental Protection Agency drinking water contamination limits, is beyond a board's jurisdiction and outside the scope of a materials license proceeding; LBP-06-8, 63 NRC 241 (2006); LBP-06-15, 63 NRC 591 (2006)

in an uncontested uranium enrichment proceeding, a licensing board, without conducting a *de novo* evaluation of the application, will determine whether the application and record of the proceeding contain sufficient information to support licensing and whether the Staff's review of the application has been adequate; LBP-06-17, 63 NRC 747 (2006)

when a case has already been dismissed by a board, it no longer has jurisdiction over a motion to reopen; CLI-06-4, 63 NRC 32 (2006)

LICENSING PROCEEDINGS

introduction of issues that are not unique to any given reactor are inappropriate in an individual reactor licensing proceeding absent evidence that the generic issue applies to that particular proceeding; LBP-06-11, 63 NRC 391 (2006)

See also License Renewal Proceedings; License Transfer Proceedings; Materials License Amendment Proceedings; Materials License Proceedings; Operating License Amendment Proceedings; Operating License Renewal Proceedings; Subpart J Proceedings; Subpart L Proceedings

LICENSING SUPPORT NETWORK

Class 1 documentary material covers information a party intends to rely upon in support of its position; CLI-06-5, 63 NRC 143 (2006)

Class 2 documentary material is material that the party in possession knows does not support its position; CLI-06-5, 63 NRC 143 (2006)

Class 3 documentary materials are "reports and studies" prepared on behalf of potential parties to the proceeding that are relevant to the issues listed in the Topical Guidelines contained in Regulatory Guide 3.69 and must be relevant to the license application; CLI-06-5, 63 NRC 143 (2006)

drafts of the license application are not Class 1, Class 2, or Class 3 documentary material under Subpart J, so the regulations do not require making draft license applications available; CLI-06-5, 63 NRC 143 (2006)

material that falls within Class 1 or Class 2 is the underlying independent documentary material used (or not used if nonsupporting) by the Department of Energy in formulating its license application; CLI-06-5, 63 NRC 143 (2006)

the distinction between "preliminary" and "circulated" drafts is a significant one in the Commission's Subpart J regulations; CLI-06-5, 63 NRC 143 (2006)

MANDATORY HEARINGS

a board's focus should be on areas in which the Staff indicated that its prescriptive process was incomplete or was not followed, or instances when the board's review of the safety evaluation report and other safety-related documents led it to believe further exploration of a particular item was necessary; LBP-06-17, 63 NRC 747 (2006)

a simple sufficiency review of uncontested issues should be conducted by boards; LBP-06-17, 63 NRC 747 (2006)

because contested and uncontested designations apply issue-by-issue, and not to proceedings-at-large, admission of a single, relatively minor contention would not negate the need to conduct a separate mandatory hearing; LBP-06-17, 63 NRC 747 (2006)

before a uranium enrichment facility can be licensed, a hearing is required to be held on that license application; LBP-06-17, 63 NRC 747 (2006)

in an uncontested uranium enrichment proceeding, a licensing board, without conducting a *de novo* evaluation of the application, will determine whether the application and record of the proceeding contain sufficient information to support licensing and whether the Staff's review of the application has been adequate; LBP-06-17, 63 NRC 747 (2006)

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matters of fact and law to be considered in a uranium enrichment facility proceeding are whether the application satisfies the applicable standards in 10 C.F.R. 30.33, 40.32, and 70.23, and whether the requirements of Part 51 have been met; LBP-06-17, 63 NRC 747 (2006)
regardless of whether a uranium enrichment facility proceeding is contested or uncontested, a licensing board must consider three baseline NEPA issues; LBP-06-17, 63 NRC 747 (2006)

MATERIALITY

a “material issue” is one in which resolution of the dispute would make a difference in the outcome of the licensing proceeding; LBP-06-10, 63 NRC 314 (2006)

MATERIALS LICENSE AMENDMENT PROCEEDINGS

for a petitioner to be admitted as a party, it must propose at least one admissible contention that meets the requirements of 10 C.F.R. 2.309(f)(1); LBP-06-6, 63 NRC 167 (2006)

MATERIALS LICENSE PROCEEDINGS

a design-based challenge involving a postulated cask drop on a sealed source is within the scope of, and material to, an irradiator licensing proceeding; LBP-06-12, 63 NRC 403 (2006)

challenges to the implementing procedures for a reactor emergency plan are not material; LBP-06-12, 63 NRC 403 (2006)

compliance with regulations of other federal agencies, such as Environmental Protection Agency drinking water contamination limits, is beyond a board’s jurisdiction and outside the scope of NRC proceedings; LBP-06-8, 63 NRC 241 (2006)

general areas of concern are no longer sufficient to trigger a hearing in a Subpart L proceeding; LBP-06-12, 63 NRC 403 (2006)

the scope of a proceeding generally is defined by the Commission’s notice of opportunity for hearing; LBP-06-12, 63 NRC 403 (2006)

MATERIALS LICENSES

bare ownership of land containing radioactive material is not part of the licensee’s licensed operation; CLI-06-14, 63 NRC 510 (2006)

MEMORANDUM OF UNDERSTANDING

an MOU is adequate to demonstrate the plausibility of applicant’s depleted uranium deconversion strategy; LBP-06-15, 63 NRC 591 (2006)

MISCONDUCT

a difference of opinion over a scientific question does not constitute fraud or misconduct on the part of the NRC Staff; CLI-06-4, 63 NRC 32 (2006)

MONITORING

a contention stating that monitoring activities may not be sufficient to identify and control the effects of aging that will occur during the 20-year renewal period falls squarely within the scope of a license renewal proceeding; LBP-06-7, 63 NRC 188 (2006)

MOOTNESS

an order denying a motion to reopen renders moot a petitioner’s request for leave to submit an amended petition to intervene; CLI-06-4, 63 NRC 32 (2006)

failure to raise any challenge to a Staff EIS correction essentially renders that aspect of an intervenor challenge moot, as the intervenor has failed to raise a litigable challenge to the previously identified error; LBP-06-9, 63 NRC 289 (2006)

if a contention alleges the omission of particular information or an issue from an application, and the information is later supplied by the applicant, the contention is moot; CLI-06-9, 63 NRC 433 (2006); LBP-06-16, 63 NRC 737 (2006)

MOTIONS

filing deadline is no more than 10 days after the occurrence or circumstance from which the motion arises; CLI-06-2, 63 NRC 9 (2006)

there is no requirement that information provided to the board by Staff counsel about a telephone call from petitioner’s former expert witness be in the form of a motion; LBP-06-10, 63 NRC 314 (2006)

MOTIONS TO REOPEN

a motion to reopen that does not satisfy the Commission’s procedural requirements but which arguably raises a significant safety or environmental issue may be referred to the Staff under 10 C.F.R. § 2.206; CLI-06-4, 63 NRC 32 (2006)

SUBJECT INDEX

a pleading cannot be timely when petitioner does not explain why the motion was filed 11 months after the NRC terminated the case, 9 months after the petitioner first raised the particular issue in its comments, and 4 months after the Staff issued the final document containing the position the petitioner disputes; CLI-06-4, 63 NRC 32 (2006)

an order denying a motion to reopen renders moot a petitioner's request for leave to submit an amended petition to intervene; CLI-06-4, 63 NRC 32 (2006)

if a party seeks to reopen a closed record and, in the process, raises an issue that was not an admitted contention in the initial proceeding, it must also satisfy the requirements for a nontimely or late-filed contention; CLI-06-4, 63 NRC 32 (2006)

NRC will not consider a last-second reopening of an adjudication and a restart of licensing board proceedings based on a pleading that is defective on its face; CLI-06-4, 63 NRC 32 (2006)

the requirements of 10 C.F.R. § 2.326 must be satisfied; CLI-06-4, 63 NRC 32 (2006)

until a license has actually been issued, the Commission itself, as opposed to the licensing board, retains jurisdiction to reopen a closed case; CLI-06-4, 63 NRC 32 (2006)

when a licensing board has already dismissed the case, the board no longer has jurisdiction; CLI-06-4, 63 NRC 32 (2006)

See also Reopening a Record

NATIONAL ENVIRONMENTAL POLICY ACT

a draft or final environmental impact statement is not considered deficient per se simply because its various NEPA findings do not include an explanation that is sufficient on its face to enable independent verification of any scientific results that underlie those findings; LBP-06-9, 63 NRC 289 (2006)

a license applicant is required to describe and the Staff to consider the potential environmental effects of the proposed agency action; LBP-06-8, 63 NRC 241 (2006)

a record of decision must accompany any Commission decision on any action for which a final environmental impact statement has been prepared; LBP-06-8, 63 NRC 241 (2006)

a Staff determination that certain scenarios, such as Part 61 intruder scenarios, are so unlikely as to fall outside the scope of the Staff's NEPA review is a proper exercise of NEPA's rule of reason; LBP-06-8, 63 NRC 241 (2006)

a Staff environmental analysis is not necessarily insufficient if, in the face of a deficiency on the part of its contractor, a responsible Staff official has "stepped into the breach" and conducted the necessary review and analysis; LBP-06-8, 63 NRC 241 (2006)

a supplemental EIS is needed where new information raises new concerns of sufficient gravity such that another, formal in-depth look at the environmental consequences of the proposed action is necessary; CLI-06-19, 63 NRC 19 (2006)

agencies are not required to select the most environmentally benign option or to require an applicant/licensee to do so; LBP-06-15, 63 NRC 591 (2006)

agencies may coordinate their NEPA and National Historic Preservation Act reviews, but the reviews remain separate and the regulations associated with each act must be independently satisfied; LBP-06-11, 63 NRC 483 (2006)

agencies must consult with and obtain the comments of any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved; LBP-06-17, 63 NRC 747 (2006)

agencies need only consider those alternatives that can achieve the purposes of the project; CLI-06-10, 63 NRC 451 (2006)

all federal agencies must apply a systematic, interdisciplinary approach that will ensure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking that may have an impact on the human environment; LBP-06-17, 63 NRC 747 (2006)

although Council on Environmental Quality regulations are not binding on the NRC when the agency has not expressly adopted them, they are entitled to considerable deference; LBP-06-8, 63 NRC 241 (2006)

although economic benefits are properly considered in an environmental impact statement, NEPA does not transform financial costs and benefits into environmental costs and benefits; CLI-06-19, 63 NRC 19 (2006)

an agency environmental impact statement must address both direct and indirect, or secondary, effects of an action; LBP-06-8, 63 NRC 241 (2006)

an agency must affirmatively provide a reasoned explanation of the applicability of a categorical exclusion when special circumstances are alleged; LBP-06-4, 63 NRC 99 (2006)

SUBJECT INDEX

consideration and evaluation of intruder scenarios and related intruder dose are part of the “hard look” NEPA requires the Staff to take at the environmental impacts associated with a particular licensing action; LBP-06-8, 63 NRC 241 (2006)

consideration of alternatives is an integral part of the application process from the outset, with no preconditions; CLI-06-9, 63 NRC 433 (2006)

contentions asserting that the risks associated with terrorist attacks require that the agency prepare an environmental assessment or an environmental impact statement are outside the scope of agency NEPA review and are inadmissible; LBP-06-4, 63 NRC 99 (2006)

cumulative impacts analysis looks to whether a new impact is significantly enhanced by already existing environmental effects; LBP-06-1, 63 NRC 41 (2006)

environmental issues that might otherwise be relevant to license renewal shall be resolved generically for all plants and thus are beyond the scope of a license renewal hearing; LBP-06-7, 63 NRC 188 (2006)

federal agencies must study, develop, and describe appropriate alternatives to the recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; LBP-06-17, 63 NRC 747 (2006)

in conducting its environmental review, an agency has discretion to rely on data, analyses, or reports prepared by persons or entities other than agency staff, including competent and responsible state authorities; LBP-06-8, 63 NRC 241 (2006)

in preparing an environmental impact statement, Staff can rely upon the environmental analyses in another agency’s EIS regarding environmental impacts; LBP-06-9, 63 NRC 289 (2006)

in reviewing an application filed by a private entity, as opposed to a project initiated by the federal government, NRC may accord substantial weight to the applicant’s preferences with regard to consideration of alternatives, including site selection and project design; LBP-06-8, 63 NRC 241 (2006)

in their environmental impact statements, federal agencies must address the environmental impact, any unavoidable adverse impacts, alternatives to the proposed action, the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources that might result from the proposed action; LBP-06-17, 63 NRC 747 (2006)

it is appropriate to consider reasonably foreseeable environmental impacts of a proposed action, even if they are only indirect effects; CLI-06-15, 63 NRC 687 (2006)

location of an irradiator may be a circumstance in which the categorical exclusions in 10 C.F.R. 51.22(b) might not apply; LBP-06-4, 63 NRC 99 (2006)

NRC has discretion in determining the extent to which a particular subject is analyzed, and may decline to examine remote and speculative or inconsequential small impacts; LBP-06-8, 63 NRC 241 (2006)

only reasonably foreseeable indirect environmental effects of a proposed licensing action must be considered; CLI-06-15, 63 NRC 687 (2006)

petitioner must file contentions based on the applicant’s environmental report, but may amend those contentions or file new contentions if the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto differs significantly from the data or conclusions in the applicant’s documents; CLI-06-9, 63 NRC 433 (2006)

procedural restraints are imposed on agencies, requiring that they take a “hard look” at the environmental impacts of a proposed action and reasonable alternatives to that action; LBP-06-8, 63 NRC 241 (2006)

regardless of whether a uranium enrichment facility proceeding is contested or uncontested, a licensing board must consider three baseline issues; LBP-06-17, 63 NRC 747 (2006)

secondary or indirect consequences of disposal of the waste generated by a facility cannot, and need not for the purposes of satisfying the agency’s NEPA obligation, be examined with particularity when a specific disposal site has not yet been identified; LBP-06-8, 63 NRC 241 (2006)

Staff’s draft and final environmental impact statements are to include a statement that will briefly describe and specify the need for the proposed action; LBP-06-17, 63 NRC 747 (2006)

the “major federal action” triggering the environmental impact statement is issuance of the license, not adjudication of the license; CLI-06-19, 63 NRC 19 (2006)

the appropriate state or federal regulatory authority, such as an Agreement State, will conduct any necessary site-specific evaluation to confirm that applicable radiological dose limits and standards for disposal of depleted uranium can be met at a particular site; CLI-06-15, 63 NRC 687 (2006)

SUBJECT INDEX

- when a board decision supplements or differs from the findings of the Staff as set forth in its final environmental impact statement, the FEIS is deemed modified by the board's decision to that extent; LBP-06-8, 63 NRC 241 (2006)
- when reviewing a license application filed by a private applicant, NRC may appropriately accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project and should take into account the needs and goals of the parties involved in the application; CLI-06-10, 63 NRC 451 (2006)
- NATIONAL HISTORIC PRESERVATION ACT**
- agencies may coordinate their National Environmental Policy Act and NHPA reviews, but the reviews remain separate and the regulations associated with each act must be independently satisfied; LBP-06-11, 63 NRC 483 (2006)
- any contractual provision that purports to shift NHPA compliance responsibility from a third party to the prospective licensee cannot affect the NRC's statutory obligation to comply with the Act with respect to the licensing of the proposed project; CLI-06-9, 63 NRC 433 (2006)
- consideration of alternatives is required only if the project will have an adverse effect on historic properties, and only after that determination is made; CLI-06-9, 63 NRC 433 (2006)
- no nomination or formal determination of eligibility is necessary to trigger an NHPA review, but a site must be within the area of potential effects and the project must affect the site to trigger a review of that site; CLI-06-9, 63 NRC 433 (2006)
- NATURALLY OCCURRING RADIOACTIVE MATERIAL**
- emissions from NORM are background radiation; CLI-06-14, 63 NRC 510 (2006)
- examples of industrial wastes that are not regulated by the Commission include uranium mining overburden, phosphate waste, water treatment waste, petroleum production waste, mineral processing waste, and geothermal energy production waste; LBP-06-1, 63 NRC 41 (2006)
- NORM includes radioactive materials that are undisturbed in nature, as well as radioactive materials that, as a result of human activities, are no longer in their natural state; LBP-06-1, 63 NRC 41 (2006)
- NO SIGNIFICANT HAZARDS DETERMINATION**
- after publishing its proposed findings for public comment, the Staff made a no significant hazards consideration finding and issued a power uprate amendment; CLI-06-8, 63 NRC 235 (2006)
- NRC POLICY**
- NRC generally defers to the Department of Justice when it seeks a delay in NRC enforcement proceedings pending the conclusion of DOJ's own criminal investigations or proceedings; CLI-06-12, 63 NRC 495 (2006)
- NRC has a longstanding policy of encouraging the fair and reasonable settlement of contested licensing proceedings; LBP-06-18, 63 NRC 830 (2006)
- NRC STAFF**
- a difference of opinion over a scientific question does not constitute fraud or misconduct on the part of the Staff; CLI-06-4, 63 NRC 32 (2006)
- the potential environmental effects of a proposed agency action must be considered; LBP-06-8, 63 NRC 241 (2006)
- See also Discovery Against NRC Staff
- NRC STAFF REVIEW**
- a Staff determination that certain scenarios, such as Part 61 intruder scenarios, are so unlikely as to fall outside the scope of the Staff's NEPA review is a proper exercise of NEPA's rule of reason; LBP-06-8, 63 NRC 241 (2006)
- a Staff NEPA analysis is not necessarily insufficient if, in the face of a deficiency on the part of its contractor, a responsible Staff official has "stepped into the breach" and conducted the necessary review and analysis; LBP-06-8, 63 NRC 241 (2006)
- agencies need only consider those alternatives that can achieve the purposes of the project; CLI-06-10, 63 NRC 451 (2006)
- in a mandatory proceeding, a licensing board is to determine, with respect to safety matters, whether the application and record of the proceeding contain sufficient information and whether the NRC Staff's review of the application has been adequate; LBP-06-17, 63 NRC 747 (2006)
- licensing boards should review contested and uncontested issues differently, giving the NRC Staff considerably more deference on uncontested issues; LBP-06-17, 63 NRC 747 (2006)

SUBJECT INDEX

NRC may appropriately accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project and should take into account the needs and goals of the parties involved in the application; CLI-06-10, 63 NRC 451 (2006)

secondary or indirect consequences of disposal of the waste generated by a facility cannot, and need not for the purposes of satisfying the agency's NEPA obligation, be examined with particularity when a specific disposal site has not yet been identified; LBP-06-8, 63 NRC 241 (2006)

Staff is ultimately responsible for the work undertaken, or not undertaken, by its contractors; LBP-06-8, 63 NRC 241 (2006)

Staff need not replicate the work done by another entity, but rather must independently review and find relevant and scientifically reasonable any outside reports or analyses on which it intends to rely; LBP-06-8, 63 NRC 241 (2006)

the Council on Environmental Quality has implemented regulations providing guidance on agency compliance with NEPA, which may help to direct the Staff's NEPA review; LBP-06-8, 63 NRC 241 (2006)

when applicant is a private entity, as opposed to the federal government, Staff may accord substantial weight to the applicant's preferences with regard to consideration of alternatives, including choices regarding site selection and project design; LBP-06-8, 63 NRC 241 (2006)

NUCLEAR REGULATORY COMMISSION

before entering into an agreement with any state. NRC is required to find the state radiation control program compatible in certain respects with that of the NRC, and adequate to protect the public health and safety with respect to the materials covered by the proposed agreement; LBP-06-8, 63 NRC 241 (2006)

NUCLEAR REGULATORY COMMISSION, AUTHORITY

although the Commission has discretion to undertake a *de novo* factual review, it generally does not exercise that authority where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-06-1, 63 NRC 1 (2006)

because of an attorney's previous disregard of the NRC's practices and procedures, the Commission orders the Office of the Secretary to screen all filings bearing the offender's signature and not to accept or docket them unless they meet all procedural requirements; CLI-06-4, 63 NRC 32 (2006)

in its oversight capacity, NRC is required to conduct regular reviews of an Agreement State's radiation control program; LBP-06-8, 63 NRC 241 (2006)

NRC has broad discretion to provide hearings or permit interventions in cases where these avenues of public participation would not be available as a matter of right; CLI-06-16, 63 NRC 708 (2006)

NRC has discretion to grant a petition for review, giving due weight to the existence of a substantial question with respect to any of the grounds listed in the Commission's regulations as potential justification; LBP-06-11, 63 NRC 483 (2006)

NRC has discretion to review all underlying factual issues *de novo*, but it is disinclined to do so where a board has weighed arguments presented by experts and rendered reasonable, record-based factual findings; CLI-06-15, 63 NRC 687 (2006)

NRC retains only oversight authority over the specific activities covered by the agreement, while an Agreement State assumes all active regulatory authority with regard to those specified activities; LBP-06-8, 63 NRC 241 (2006)

NRC retains the power to terminate or suspend an agreement with any state under certain circumstances if it determines that such action is required to ensure public health and safety; LBP-06-8, 63 NRC 241 (2006)

the Atomic Energy Act authorizes the Commission to enter into agreements with the governor of any state to transfer authority to regulate byproduct materials, source materials, and small quantities of special nuclear materials, including the disposal of such materials; LBP-06-8, 63 NRC 241 (2006)

until a license is issued, the Commission still has authority to add license conditions or to supplement an environmental impact statement if intervenors or the NRC Staff uncover significant, previously unconsidered, and newly arising safety concerns or environmental effects; CLI-06-19, 63 NRC 19 (2006)

NUCLEAR REGULATORY COMMISSION, JURISDICTION

an operating license proceeding that can be reopened remains in existence until a license is issued; CLI-06-19, 63 NRC 19 (2006)

SUBJECT INDEX

authority over uranium ore and other source material attaches only after removal from its place of deposit in nature and not when the ore is mined; CLI-06-14, 63 NRC 510 (2006)
licensing boards should not entertain collateral attacks on the actions of other federal agencies on matters over which the Commission has no jurisdiction; LBP-06-15, 63 NRC 591 (2006)
until a license has actually been issued, the Commission itself, as opposed to the licensing board, retains jurisdiction to reopen a closed case; CLI-06-4, 63 NRC 32 (2006)

OBJECTIONS

See Waiver of Objection

OPERATING LICENSE AMENDMENT PROCEEDINGS

a contention stating that monitoring activities may not be sufficient to identify and control the effects of aging that will occur during the 20-year renewal period falls squarely within the scope of a license renewal proceeding; LBP-06-7, 63 NRC 188 (2006)

OPERATING LICENSE AMENDMENTS

Staff is to issue its approval or denial of an application promptly once it completes its own review of the application, notwithstanding the pendency of any hearing; CLI-06-8, 63 NRC 235 (2006)

OPERATING LICENSE RENEWAL

an issue can be related to plant aging and still not warrant review at the time of a license renewal application, if the issue is adequately dealt with by regulatory processes on an ongoing basis; LBP-06-10, 63 NRC 314 (2006)

Category 1, or generic, issues in Appendix B to Subpart A of Part 51 are not within the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)

Category 2, or plant-specific, issues in 10 C.F.R. Part 51, Subpart A, Appendix B are within the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)

safety review is focused upon those potential detrimental effects of aging that are not routinely addressed by ongoing regulatory oversight programs; LBP-06-10, 63 NRC 314 (2006)

OPERATING LICENSE RENEWAL PROCEEDINGS

allegations of radiological and nonradiological contamination of drinking water are outside the scope of renewal proceedings because they involve no aging-related issues and are Category 1, or generic, issues; LBP-06-10, 63 NRC 314 (2006)

embrittlement of the reactor pressure vessel is within the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)

environmental justice issues are inadmissible if no sufficiently specific disproportionate effects with a nexus to the physical environment, falling on low-income and minority communities, are alleged or shown; LBP-06-10, 63 NRC 314 (2006)

spent fuel storage issues are outside the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)

the radioactive source posing the danger in a reactor license renewal case is the identical source giving rise to the 50-mile proximity presumption rule for standing in reactor construction permit and operating license proceedings; LBP-06-7, 63 NRC 188 (2006)

ORDERS

See Enforcement Orders

PERJURY

saying the government needs to demonstrate the potential for the tainting of evidence is not the equivalent of insisting that the government establish that perjury or intimidation would necessarily take place; LBP-06-13, 63 NRC 523 (2006)

PLEADINGS

because of an attorney's previous disregard of the NRC's practices and procedures, the Commission orders the Office of the Secretary to screen all filings bearing the offender's signature and not to accept or docket them unless they meet all procedural requirements; CLI-06-4, 63 NRC 32 (2006)

contention admissibility requirements are rigorous and demand a level of discipline and preparedness on the part of petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the outset; LBP-06-12, 63 NRC 403 (2006)

contention admissibility rules require a concise statement of the alleged facts or expert opinions that support petitioner's position, but does not require the submission of an expert opinion or require that an expert opinion be submitted in the form of admissible evidence; LBP-06-7, 63 NRC 188 (2006)

SUBJECT INDEX

every participant in the adjudicative process has an obligation to fully develop its arguments; LBP-06-7, 63 NRC 188 (2006)

page limits on briefs are intended to encourage parties to make their strongest arguments as concisely as possible; CLI-06-10, 63 NRC 451 (2006)

petitioner's reply must be narrowly focused on the legal or logical arguments presented in the applicant/licensee or NRC staff answer; LBP-06-12, 63 NRC 403 (2006)

regulations governing appeals from the denial of intervention provide for a notice of appeal with a supporting brief, and for a brief opposing the appeal, but do not provide for reply briefs; CLI-06-9, 63 NRC 433 (2006)

the burden of setting forth a clear and coherent argument rests squarely on the shoulders of the petitioner; LBP-06-12, 63 NRC 403 (2006)

POWER UPRATE

Staff is to issue its approval or denial of an application promptly once it completes its own review of the application, notwithstanding the pendency of any hearing; CLI-06-8, 63 NRC 235 (2006)

PRECEDENTIAL EFFECT

legal determinations made on appeal in a case are controlling precedent, becoming the law of the case for all later decisions in the same case, with only limited exceptions; LBP-06-11, 63 NRC 483 (2006)

the practice of granting or denying discretionary intervention should develop "not through precedent, but through attention to the concrete facts of particular situations; CLI-06-16, 63 NRC 708 (2006)

the value of a licensing board decision that is not affirmed by the Commission is limited to its power to persuade; LBP-06-1, 63 NRC 41 (2006)

PRESIDING OFFICER, AUTHORITY

a stipulation or compromise in an enforcement proceeding is subject to approval by the designated presiding officer, who may order such adjudication of the issues as he may deem to be required in the public interest; LBP-06-18, 63 NRC 830 (2006)

the process for determining whether a proposed settlement is in the public interest is left to the discretion of the board; LBP-06-18, 63 NRC 830 (2006)

PRIVILEGE

See Deliberative Process Privilege; Qualified Privilege

PRO SE LITIGANTS

pleadings submitted by a petitioner acting *pro se* are not always expected to meet the same standards as pleadings drafted by lawyers, but late filing of documents is not condoned; LBP-06-14, 63 NRC 568 (2006)

PROOF

See Burden of Proof

PUBLIC INTEREST

a stipulation or compromise in an enforcement proceeding is subject to approval by the designated presiding officer, who may order such adjudication of the issues as he may deem to be required in the public interest; LBP-06-18, 63 NRC 830 (2006)

given the extended history of the proceeding and the nature of the license amendment sought, it can scarcely be thought that the deferral of a hearing to await the completion of Staff's technical review might of itself have an adverse impact; LBP-06-6, 63 NRC 167 (2006)

the process for determining whether a proposed settlement is in the public interest is left to the discretion of the board; LBP-06-18, 63 NRC 830 (2006)

when determining whether good cause exists for delay of a proceeding, the decisionmaker must consider both the public interest as well as the interests of the person subject to the immediately effective order; CLI-06-12, 63 NRC 495 (2006)

QUALIFIED PRIVILEGE

a board has discretion to compel production of a document upon a finding that the need for the evidence outweighs the interests that support the privilege; LBP-06-3, 63 NRC 85 (2006)

in a proceeding involving the safety of a proposed 20% increase in the power of a nuclear power reactor, the seriousness of the litigation and the issues involved weigh in favor of disclosing deliberative process documents; LBP-06-3, 63 NRC 85 (2006)

SUBJECT INDEX

- in ruling on the qualified nature of deliberative process privilege, five factors are relevant in balancing the need for the documents against the government's interest in nondisclosure; LBP-06-3, 63 NRC 85 (2006)
- the fact that deliberative process privilege documents contain important new analyses that are relevant to admitted contentions weighs in favor of their disclosure; LBP-06-3, 63 NRC 85 (2006)
- the imminent availability of Staff's authoritative position on a subject that is discussed in deliberative process documents constitutes "other evidence" such that the immediate need for the documents does not outweigh the deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)
- when NRC Staff is a party in a proceeding and not merely an indifferent bystander to private-party litigation, the role of the government in the litigation weighs in favor of disclosure; LBP-06-3, 63 NRC 85 (2006)
- RADIATION**
- See Background Radiation
- RADIOACTIVE WASTE**
- waste that does not contain any of the radionuclides listed in 10 C.F.R. 61.55(a)(2)(iv) is, by default, designated Class A waste; LBP-06-8, 63 NRC 241 (2006)
- RADIOACTIVE WASTE, LOW-LEVEL**
- a literal reading of 10 C.F.R. 61.55(a)(6) renders depleted uranium a Class A waste, but the Part 61 rulemaking did not analyze the uranium enrichment waste stream; CLI-06-15, 63 NRC 687 (2006)
- RADIOACTIVE WASTE DISPOSAL**
- a "land disposal facility" includes any land, building and structures, and equipment that are intended to be used for the disposal of radioactive wastes, but does not include a geologic repository; LBP-06-8, 63 NRC 241 (2006)
- a "near-surface disposal facility" is a land disposal facility in which radioactive waste is disposed of in or within the upper 30 meters of the earth's surface; LBP-06-8, 63 NRC 241 (2006)
- Class A, B, and C wastes are generally appropriate for near-surface disposal, whereas wastes having a greater radioactivity than Class C waste typically are not appropriate for near-surface disposal; LBP-06-8, 63 NRC 241 (2006)
- DOE must accept for dispositioning depleted uranium from a private uranium enrichment facility upon request of the facility operator or appropriate third party; LBP-06-15, 63 NRC 591 (2006)
- neither an intervenor nor an applicant/licensee nor the NRC has the authority to challenge or direct DOE's estimates of the fees it will charge to a uranium enrichment facility that requests DOE to disposition its depleted uranium waste; LBP-06-15, 63 NRC 591 (2006)
- some near-surface disposal facilities may not be capable of accepting large quantities of depleted uranium from enrichment operations, and dose pathway analyses should be performed on a site-specific basis to ensure compliance with Part 61, Subpart C; LBP-06-8, 63 NRC 241 (2006)
- the appropriate state or federal regulatory authority, such as an Agreement State, will conduct any necessary site-specific evaluation to confirm that applicable radiological dose limits and standards for disposal of depleted uranium can be met at a particular site; CLI-06-15, 63 NRC 687 (2006)
- transfer of depleted uranium from enrichment operations to DOE for deconversion and disposal constitutes a plausible strategy for dispositioning; LBP-06-15, 63 NRC 591 (2006)
- whether near-surface disposal is appropriate for a particular type of radioactive waste turns in large part on how that waste is classified; LBP-06-8, 63 NRC 241 (2006)
- RADIOLOGICAL CONTAMINATION**
- allegations of contamination of drinking water are outside the scope of license renewal proceeding because they involve no aging-related issues and are Category 1, or generic, issues; LBP-06-10, 63 NRC 314 (2006)
- REACTOR OPERATOR EXAMINATIONS**
- applicant is exempted from the 6-month waiting period required for a third application for a reactor operator license, contingent upon participation in licensed operator requalification training program; LBP-06-2, 63 NRC 80 (2006)
- REACTOR PRESSURE VESSEL**
- embrittlement of the RPV is within the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)

SUBJECT INDEX

RECORD OF DECISION

any Commission decision on any action for which an FEIS has been prepared must be accompanied by a record of decision; LBP-06-8, 63 NRC 241 (2006)

for license renewal applications, the Commission shall determine whether or not the adverse environmental impacts of license renewal are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable; LBP-06-10, 63 NRC 314 (2006)

when a hearing is held on a proposed action, the licensing board's initial decision on that action constitutes the record of decision; LBP-06-8, 63 NRC 241 (2006)

REGULATIONS

a contention is not an impermissible challenge to agency regulations merely because the applicant and the Staff believe the regulations have been satisfied; LBP-06-12, 63 NRC 403 (2006)

although Council on Environmental Quality regulations are not binding on the NRC when the agency has not expressly adopted them, they are entitled to considerable deference; LBP-06-8, 63 NRC 241 (2006)

compliance with regulations of other federal agencies, such as Environmental Protection Agency drinking water contamination limits, is beyond a board's jurisdiction and outside the scope of a materials license proceeding; LBP-06-8, 63 NRC 241 (2006)

new regulations cannot be applied retroactively absent clear evidence that Congress authorized, in the statute being implemented, the issuance of retroactive regulations, and that the statute intended the regulations to be applied retroactively; LBP-06-11, 63 NRC 483 (2006)

NRC may grant an exemption from a particular regulatory provision if it will not threaten the common defense and security or endanger life or property and is otherwise in the public interest; CLI-06-10, 63 NRC 451 (2006)

to the extent that an intervenor disagrees with a regulation, its recourse is to petition the Commission for rulemaking to change it; LBP-06-1, 63 NRC 41 (2006)

See also Rules of Practice

REGULATIONS, INTERPRETATION

a literal reading of 10 C.F.R. 61.55(a)(6) renders depleted uranium a Class A waste, but the Part 61 rulemaking did not analyze the uranium enrichment waste stream; CLI-06-15, 63 NRC 687 (2006)

a term that lacks a statutory or regulatory definition should be construed in accord with its ordinary or natural meaning; LBP-06-1, 63 NRC 41 (2006)

absent particular circumstances for excluding intruder scenarios in evaluating compliance with the Part 61 regulations, they must be considered by the licensing entity at the time of initial licensing or any subsequent license amendment; LBP-06-8, 63 NRC 241 (2006)

administrative history and other available guidance may be consulted for background information and the resolution of ambiguities in a regulation's language; LBP-06-11, 63 NRC 483 (2006)

interpretation may not conflict with the plain meaning of the wording used in the regulation; CLI-06-5, 63 NRC 143 (2006)

courts construe regulations in the same manner as they do statutes, by ascertaining the plain meaning of the regulation; LBP-06-11, 63 NRC 483 (2006)

discussion in the environmental report of unaffected areas or sites is not required by 10 C.F.R. 51.45(b); CLI-06-9, 63 NRC 433 (2006)

for tailings or wastes to fall within the definition of byproduct material, the plain statutory and regulatory language requires that such tailings or wastes be produced from ore that has been processed for its source material content; LBP-06-1, 63 NRC 41 (2006)

in construing a regulation, the intent of the enacting body may be ascertained by considering the language used and the overall purpose of the regulation, and by reflecting on the practical effect of the possible interpretations; LBP-06-11, 63 NRC 483 (2006)

Part 61 contains flexibility to deal with the occurrence of new waste streams or disposal methods that were not included in the Part 61 rulemaking; LBP-06-8, 63 NRC 241 (2006)

Part 61 of 10 C.F.R. sets forth the NRC's regulations for the disposal of low-level radioactive waste in a land disposal facility, including certain "performance objectives" and "technical requirements" that must be met before waste can be disposed of at a particular site; LBP-06-8, 63 NRC 241 (2006)

Part 61, Subpart C "performance objectives" must be met regardless of the classification of the waste involved; LBP-06-8, 63 NRC 241 (2006)

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performance objectives for a near-surface disposal facility require that the relevant licensing entity examine whether, at any particular time after active institutional controls are removed, the section 61.41 dose limitations will be met for an inadvertent intruder; LBP-06-8, 63 NRC 241 (2006)

pursuant to the rule of the last antecedent, qualifying words, phrases, and clauses must be applied to the words or phrases immediately preceding them and are not to be construed as extending to and including others more remote; LBP-06-1, 63 NRC 41 (2006)

some near-surface disposal facilities may not be capable of accepting large quantities of depleted uranium from enrichment operations, and dose pathway analyses should be performed on a site-specific basis to ensure compliance with Part 61, Subpart C; LBP-06-8, 63 NRC 241 (2006)

technical terms of art should be interpreted by reference to the trade or industry to which they apply; CLI-06-14, 63 NRC 510 (2006)

the form, content, and board approval provisions of 10 C.F.R. 2.338 are not limited to settlement agreements achieved via alternative dispute resolution, but apply to all settlement agreements that purport to be binding on the proceeding and that are submitted to a board after the notice of hearing; LBP-06-18, 63 NRC 830 (2006)

the performance requirements of sections 70.60 and 70.61 regarding nuclear criticality safety are discussed; LBP-06-17, 63 NRC 747 (2006)

the phrase "from the licensed operation" in 10 C.F.R. 20.1301(a)(1) appears to serve as a limitation on what is to be included in the total effective dose equivalent calculation; LBP-06-1, 63 NRC 41 (2006)

the phrase "not under the control of the licensee" in 10 C.F.R. 20.1003 was intended only to apply to Chernobyl-like fallout, not to the antecedent phrase "naturally occurring radioactive materials"; LBP-06-1, 63 NRC 41 (2006)

the purpose of 10 C.F.R. 2.1003 is to define the availability of material, not to provide definitions of types of materials; CLI-06-5, 63 NRC 143 (2006)

REGULATORY GUIDES

although not legally binding, Staff guidance documents provide further information about the content of the integrated safety analysis summary and how an applicant can comply with criticality safety regulations; LBP-06-17, 63 NRC 747 (2006)

Staff guidance documents generally do not constitute legally binding interpretations of agency regulations; LBP-06-15, 63 NRC 591 (2006)

REOPENING A RECORD

Commission jurisdiction continues until a license is actually issued; CLI-06-19, 63 NRC 19 (2006)

the Commission need not reopen adjudicatory proceedings simply on a claim of new evidence; CLI-06-19, 63 NRC 19 (2006)

when the record of a proceeding has long been closed, the burden on a petitioner is significant; CLI-06-19, 63 NRC 19 (2006)

See also Motions To Reopen

REPLY BRIEFS

a petitioner may not rectify its contention pleading inadequacies in its reply; LBP-06-12, 63 NRC 403 (2006)

a petitioner that fails to develop an argument in its petition is foreclosed from doing so in the first instance in its reply brief; LBP-06-7, 63 NRC 188 (2006)

a petitioner that fails to submit a reply brief is foreclosed from challenging the assertions advanced by the licensee and the NRC Staff in their answers, unless it put such assertions in issue in its petition; LBP-06-7, 63 NRC 188 (2006)

if a contention as originally pled did not cite adequate documentary support, the petitioner cannot remediate the deficiency in its reply brief by introducing documents that were available to it during the time frame for initially filing contentions; CLI-06-17, 63 NRC 727 (2006)

in ruling on admissibility of contentions, licensing boards do not consider anything found in a reply to an answer to an intervention petition that was not in petitioners' original contentions, unless it constitutes legitimate amplification of original contentions or properly late-filed material; LBP-06-10, 63 NRC 314 (2006)

new arguments or new legal theories that opposing parties have not had the opportunity to address are not permitted; CLI-06-9, 63 NRC 433 (2006)

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- petitioner's reply must be narrowly focused on the legal or logical arguments presented in the applicant/licensee or NRC staff answer; LBP-06-12, 63 NRC 403 (2006)
- regulations governing appeals from the denial of intervention provide for a notice of appeal with a supporting brief, and for a brief opposing the appeal, but do not provide for reply briefs; CLI-06-9, 63 NRC 433 (2006)
- the focus must be on the legal or factual arguments first presented in the original petition or raised in the answers to it; CLI-06-17, 63 NRC 727 (2006)
- REPLY TO ANSWER TO MOTION**
- silence about facts constitutes a waiver of the specific factual contentions made by the opposing party in a brief filed earlier; LBP-06-7, 63 NRC 188 (2006)
- there is no right to reply to an answer to a motion for summary disposition, but if the answer contains an allegation that is plainly and factually incorrect, the moving party can request the opportunity to respond and to correct the record; LBP-06-5, 63 NRC 116 (2006)
- REQUEST FOR ACTION**
- a motion to reopen that does not satisfy the Commission's procedural requirements but which arguably raises a significant safety or environmental issue may be referred to the Staff under 10 C.F.R. § 2.206; CLI-06-4, 63 NRC 32 (2006)
- if intervenors have any cause to believe that a licensee is not adequately following its license conditions, they can petition the NRC Staff for appropriate enforcement action; CLI-06-1, 63 NRC 1 (2006)
- REQUEST FOR ADDITIONAL INFORMATION**
- a Staff-issued RAI ordinarily may not be used to support admission of a new contention because such a request, standing alone, generally does not give rise to a genuine dispute on material issues; LBP-06-11, 63 NRC 391 (2006)
- documents that contain the analysis, opinions, and recommendations of NRC Staff members regarding an applicant's response to prior RAIs or the formulation of new RAIs are deliberative and thus may qualify for the privilege; LBP-06-3, 63 NRC 85 (2006)
- RESPONSES TO PETITIONS**
- to the extent that licensee's response focuses on the merits of petitioner's contention at the admissibility stage, and not on whether it is admissible, the response is beyond consideration; LBP-06-6, 63 NRC 167 (2006)
- REVIEW**
- See Appellate Review; Environmental Review; NRC Staff Review; Safety Review
- REVIEW, DISCRETIONARY**
- interlocutory review is allowed if the challenged board decision threatens immediate and serious irreparable impact or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-06-12, 63 NRC 495 (2006)
- RULE OF REASON**
- a Staff determination that certain scenarios, such as Part 61 intruder scenarios, are so unlikely as to fall outside the scope of the Staff's NEPA review is a proper exercise of NEPA's rule of reason; LBP-06-8, 63 NRC 241 (2006)
- an agency's environmental review need only account for those impacts that have some likelihood of occurring or are reasonably foreseeable; LBP-06-8, 63 NRC 241 (2006)
- consideration and evaluation of intruder scenarios and related intruder dose are part of the "hard look" NEPA requires the Staff to take at the environmental impacts associated with a particular licensing action; LBP-06-8, 63 NRC 241 (2006)
- RULEMAKING**
- agencies generally are free to exercise their discretion in determining whether to formulate policy through rulemaking or adjudication; LBP-06-7, 63 NRC 188 (2006)
- licensing boards should not accept in individual license proceedings contentions that are, or are about to become, the subject of general rulemaking by the Commission; LBP-06-7, 63 NRC 188 (2006)
- to the extent that an intervenor disagrees with a regulation, its recourse is to petition the Commission for rulemaking to change it; LBP-06-1, 63 NRC 41 (2006)

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RULES OF PRACTICE

- a board properly found no standing when petitioner failed to demonstrate that it, or any of its members, would suffer any concrete or particularized harm from a proposed license renewal; CLI-06-6, 63 NRC 161 (2006)
- a contention must meet certain specificity and basis requirements and must fall within the scope of the proceeding; CLI-06-16, 63 NRC 708 (2006)
- a contention that does not directly controvert a position taken by the applicant in the application is subject to dismissal; LBP-06-10, 63 NRC 314 (2006)
- a contention will be ruled inadmissible where the petitioner has offered only bare assertions and speculation; LBP-06-7, 63 NRC 188 (2006)
- a motion to reopen a closed proceeding must satisfy the requirements of 10 C.F.R. § 2.326; CLI-06-4, 63 NRC 32 (2006)
- a motion to reopen that does not satisfy the Commission's procedural requirements but which arguably raises a significant safety or environmental issue may be referred to the Staff under 10 C.F.R. § 2.206; CLI-06-4, 63 NRC 32 (2006)
- a notice of appeal must be accompanied by a brief; CLI-06-6, 63 NRC 161 (2006)
- a notice of withdrawal combined with an attached memorandum of understanding whereby applicant agrees to perform certain actions and testing, in return for which the intervenor agrees to withdraw, with prejudice, from the litigation, constitutes a *quid pro quo* arrangement which is a settlement agreement within the meaning of 10 C.F.R. 2.338; LBP-06-18, 63 NRC 830 (2006)
- a party opposing summary disposition must counter each adequately supported material fact with its own statement of material facts in dispute and supporting materials, or the movant's facts will be deemed admitted; LBP-06-9, 63 NRC 289 (2006)
- a petitioner may have standing based upon geographical proximity to a particular facility; LBP-06-4, 63 NRC 99 (2006); LBP-06-7, 63 NRC 188 (2006)
- a petitioner seeking discretionary intervention must propose at least one admissible contention; CLI-06-16, 63 NRC 708 (2006)
- a petitioner that fails to develop an argument in its petition is foreclosed from doing so in the first instance in its reply brief; LBP-06-7, 63 NRC 188 (2006)
- a petitioner that fails to submit a reply brief is foreclosed from challenging the assertions advanced by the licensee and the NRC Staff in their answers, unless it put such assertions in issue in its petition; LBP-06-7, 63 NRC 188 (2006)
- a public interest group may establish representational standing by having its affected members authorize the organization to represent them; LBP-06-10, 63 NRC 314 (2006)
- A reply cannot expand the scope of the arguments set forth in the original pleading; CLI-06-17, 63 NRC 727 (2006)
- a request for an exemption from a particular regulatory provision does not render a license application deficient; CLI-06-10, 63 NRC 451 (2006)
- a showing of relevance alone is not sufficient for a party seeking a deliberative process privilege document to demonstrate that its need for the document outweighs the need to protect the document; LBP-06-3, 63 NRC 85 (2006)
- a state has standing when a proceeding involves a facility located within the state's boundaries; LBP-06-7, 63 NRC 188 (2006)
- a statement purporting to show a real potential for injury sufficient for standing will be rejected if it is too vague and general; CLI-06-2, 63 NRC 9 (2006)
- a summary disposition movant bears the initial burden of making the requisite showing that there is no genuine issue as to any material fact, which it attempts to do by means of a required statement of material facts not at issue and any supporting materials (including affidavits, discovery responses, and documents) that accompany its dispositive motion; LBP-06-9, 63 NRC 289 (2006)
- a threatened unwanted exposure to radiation, even a minor one, is sufficient to establish an injury; LBP-06-4, 63 NRC 99 (2006)
- absent evidence to the contrary, a licensing board will not assume licensee will act in derogation of its formal commitments to the NRC Staff; LBP-06-7, 63 NRC 188 (2006)

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absent extreme circumstances, the Commission will not consider on appeal either new arguments or new evidence supporting a contention that the licensing board never had the opportunity to consider; CLI-06-10, 63 NRC 451 (2006)

agencies generally are free to exercise their discretion in determining whether to formulate policy through rulemaking or adjudication; LBP-06-7, 63 NRC 188 (2006)

although all six factors are examined regardless of the result on the critical first "sound record" factor, no NRC decision allowing discretionary intervention in the face of a negative finding on the "sound record" fact has occurred; CLI-06-16, 63 NRC 708 (2006)

an applicant has the right to file an interlocutory appeal of board orders admitting contentions, but only if the appeal challenges the admissibility of all admitted contentions; CLI-06-13, 63 NRC 508 (2006)

an expert opinion that merely states a conclusion without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the board of the ability to make the necessary, reflective assessment of the opinion; CLI-06-10, 63 NRC 451 (2006)

an intervenor may not attempt to use a license application proceeding to rewrite Commission regulations; LBP-06-1, 63 NRC 41 (2006)

an intervention petitioner must demonstrate a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; CLI-06-2, 63 NRC 9 (2006); LBP-06-4, 63 NRC 99 (2006); LBP-06-7, 63 NRC 188 (2006); LBP-06-10, 63 NRC 314 (2006)

any application of the NRC rules to prevent all parties from raising material issues which could not be raised prior to the release of the environmental reports would be a misapplication subject to judicial review; LBP-06-14, 63 NRC 568 (2006)

at the contention admissibility stage of a proceeding, a licensing board will not adjudicate merits-related issues; LBP-06-7, 63 NRC 188 (2006)

boards may reframe contentions, following a determination of their admissibility, for purposes of clarity, succinctness, and a more efficient proceeding; CLI-06-16, 63 NRC 708 (2006)

boards must not redraft inadmissible contentions to cure deficiencies and thereby render them admissible; CLI-06-16, 63 NRC 708 (2006)

challenges to the admissibility of less than all admitted contentions must abide the end of the case; CLI-06-13, 63 NRC 508 (2006)

Commission jurisdiction to reopen a proceeding continues until a license is actually issued; CLI-06-19, 63 NRC 19 (2006)

compliance with the requirement that a summary disposition movant make a sincere effort to contact other parties in the proceeding and to resolve the issues raised in the motion can only be determined from the objective reasonableness of the movant's efforts, as shown by all the facts and circumstances, not by his or her subjective intent; LBP-06-5, 63 NRC 116 (2006)

contention admissibility requirements are rigorous and demand a level of discipline and preparedness on the part of petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the outset; LBP-06-12, 63 NRC 403 (2006)

contention admissibility rules are not designed to erect an onerous evidentiary hurdle, but rather to help to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions; LBP-06-7, 63 NRC 188 (2006)

contention admissibility rules require a concise statement of the alleged facts or expert opinions that support petitioner's position, but does not require the submission of an expert opinion or require that an expert opinion be submitted in the form of admissible evidence; LBP-06-7, 63 NRC 188 (2006)

contentions must be based on a genuine material dispute, not the possibility that petitioners, if they perform their own additional analyses, may ultimately disagree with the application; CLI-06-10, 63 NRC 451 (2006)

counsel have a continuing duty to update a tribunal about any development that may conceivably affect the outcome of litigation; LBP-06-10, 63 NRC 314 (2006)

counsel have an ethical responsibility not to knowingly make a false statement of fact or law to a tribunal or fail to correct a false statement of material fact or law previously made to the tribunal by the lawyer; LBP-06-10, 63 NRC 314 (2006)

counsel have an obligation to assure that, to the best of their knowledge, information, and belief, representations made in all pleadings are true; LBP-06-10, 63 NRC 314 (2006)

deliberative process privilege is a qualified privilege; LBP-06-3, 63 NRC 85 (2006)

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deliberative process privilege requires that the information be both predecisional and deliberative; LBP-06-3, 63 NRC (2006)

discretionary interlocutory review is allowed if the challenged board decision threatens immediate and serious irreparable impact or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-06-12, 63 NRC 495 (2006)

discretionary intervention is meant to ensure a sound adjudicatory record, not simply to provide a second representative to assist (allegedly) ill-represented parties; CLI-06-16, 63 NRC 708 (2006)

documents that contain the analysis, opinions, and recommendations of NRC Staff members regarding an applicant's response to prior requests for additional information or the formulation of new RAIs are deliberative and thus may qualify for deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)

every participant in the adjudicative process has an obligation to fully develop its arguments; LBP-06-7, 63 NRC 188 (2006)

failure to raise any challenge to a Staff EIS correction essentially renders that aspect of an intervenor challenge moot, as the intervenor has failed to raise a litigable challenge to the previously identified error; LBP-06-9, 63 NRC 289 (2006)

for each contention, a petitioner must provide a specific statement of the issue of law or fact to be raised or controverted, and a brief explanation of the basis for the contention; LBP-06-10, 63 NRC 314 (2006)

for each contention, a petitioner must provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact; LBP-06-10, 63 NRC 314 (2006)

generalized expertise, even scientific eminence, is an insufficient substitute for particularized knowledge of the issues actually in dispute; CLI-06-16, 63 NRC 708 (2006)

if a contention alleges the omission of particular information or an issue from an application, and the information is later supplied by the applicant, the contention is moot; LBP-06-16, 63 NRC 737 (2006)

if a contention as originally pled did not cite adequate documentary support, the petitioner cannot remediate the deficiency in its reply brief by introducing documents that were available to it during the time frame for initially filing contentions; CLI-06-17, 63 NRC 727 (2006)

if a newly presented contention fails to satisfy 10 C.F.R. 2.309(f)(2), it will be deemed nontimely and must satisfy 10 C.F.R. 2.309(c) to be admitted; LBP-06-11, 63 NRC 391 (2006)

if a party seeks to reopen a closed record and, in the process, raises an issue that was not an admitted contention in the initial proceeding, it must also satisfy the requirements for a nontimely or late-filed contention; CLI-06-4, 63 NRC 32 (2006)

if an expert asserts a factual or technical position that is so patently incorrect or absurd, a presiding officer must reject that position as constituting a genuine dispute; LBP-06-5, 63 NRC 116 (2006)

if new and materially different information becomes available during the processing of the application, and a petitioner promptly files a new contention based on this new information, the contention is admissible if it also satisfies the general contention pleading standards; LBP-06-14, 63 NRC 568 (2006)

if petitioner files a new contention within the 20-day time limit set by the board, and if it satisfies the remaining factors in section 2.309(f)(2), petitioner need not address the requirements under section 2.309(c), which apply to nontimely filings; LBP-06-16, 63 NRC 737 (2006)

in a proceeding involving the safety of a proposed 20% increase in the power of a nuclear power reactor, the seriousness of the litigation and the issues involved weigh in favor of disclosing deliberative process documents; LBP-06-3, 63 NRC 85 (2006)

in balancing the six factors for discretionary hearing, assistance in developing a sound record is the most important; CLI-06-16, 63 NRC 708 (2006)

in reactor licensing proceedings, persons who reside within a 50-mile radius of a reactor plant are presumed to have standing; LBP-06-7, 63 NRC 188 (2006); LBP-06-10, 63 NRC 314 (2006)

in ruling on admissibility of contentions, licensing boards do not consider anything found in a reply to an answer to an intervention petition that was not in petitioners' original contentions, unless it constitutes legitimate amplification of original contentions or properly late-filed material; LBP-06-10, 63 NRC 314 (2006)

in ruling on requests for discretionary intervention, NRC's presiding officers and licensing boards traditionally consider the six factors of 10 C.F.R. 2.309(e)(1)-(2); CLI-06-16, 63 NRC 708 (2006)

in ruling on the qualified nature of deliberative process privilege, five factors are relevant in balancing the need for the documents against the government's interest in nondisclosure; LBP-06-3, 63 NRC 85 (2006)

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it is an abuse of the adjudicatory process to use a motion for summary disposition as a subterfuge for the filing of interrogatories, requests for admission, or other discovery; LBP-06-5, 63 NRC 116 (2006)

it is not proper for a board to untangle conflicting expert affidavits and decide which experts are more correct; LBP-06-5, 63 NRC 116 (2006)

it may be necessary to examine the language of the bases to determine a contention's scope; LBP-06-16, 63 NRC 737 (2006)

licensing boards are expected to examine cited materials to verify that they support a contention, but are not expected to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves; CLI-06-10, 63 NRC 451 (2006)

licensing boards are to look to judicial concepts of standing in determining whether a petitioner has established the necessary interest to intervene; CLI-06-6, 63 NRC 161 (2006); LBP-06-4, 63 NRC 99 (2006); LBP-06-10, 63 NRC 314 (2006)

licensing boards do not have jurisdiction over matters properly before other regulatory bodies; LBP-06-8, 63 NRC 241 (2006)

licensing boards should not accept in individual license proceedings contentions that are, or are about to become, the subject of general rulemaking by the Commission; LBP-06-7, 63 NRC 188 (2006)

motions must be filed no more than 10 days after the occurrence or circumstance from which the motion arises; CLI-06-2, 63 NRC 9 (2006)

motions to reopen a closed proceeding must be timely; CLI-06-4, 63 NRC 32 (2006)

new bases for a contention cannot be introduced in a reply brief, or any other time after the date the original contentions are due, unless the petitioner meets the late-filing criteria; CLI-06-17, 63 NRC 727 (2006)

no contention will be admitted for litigation in any NRC adjudicatory proceeding unless the pleading requirements are met; CLI-06-9, 63 NRC 433 (2006); CLI-06-10, 63 NRC 451 (2006)

no specific number of days whereby a board can measure or determine whether a contention is "timely" is specified by NRC regulations; LBP-06-14, 63 NRC 568 (2006)

NRC generally defers to the Department of Justice when it seeks a delay in NRC enforcement proceedings pending the conclusion of DOJ's own criminal investigations or proceedings; CLI-06-12, 63 NRC 495 (2006)

NRC has broad discretion to provide hearings or permit interventions in cases where these avenues of public participation would not be available as a matter of right; CLI-06-16, 63 NRC 708 (2006)

NRC regulations do not provide a right to appeal interlocutory orders; CLI-06-12, 63 NRC 495 (2006)

NRC rules call for a clear statement of the basis for the contentions and the submission of supporting information and references to specific documents and sources that establish the validity of the contention; CLI-06-9, 63 NRC 433 (2006)

NRC Staff communications are factual in nature and are not protected by the deliberative process privilege when the communications summarize the procedural aspects of Staff projects or report on the status of Staff work; LBP-06-3, 63 NRC 85 (2006)

NRC Staff communications concerning the appropriate wording and scope of a potential license condition are deliberative and thus may qualify for the deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)

NRC Staff communications concerning whether a potential license condition should be imposed are deliberative and thus may qualify for the deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)

NRC Staff verification that a licensee complies with preapproved design or testing criteria is a highly technical inquiry not particularly suitable for hearing; CLI-06-1, 63 NRC 1 (2006)

on appeal, the Commission usually defers to boards' fact-based decisions; CLI-06-12, 63 NRC 495 (2006)

opponents of summary disposition must respond to each of the "material facts" listed by the movant, admitting or denying each of them, and must set forth specific facts, by affidavit or otherwise, showing that there are genuine issues of fact; LBP-06-5, 63 NRC 116 (2006)

opposing trial or litigation counsel may be deposed only if no other means exist to obtain the information, and the information sought is relevant and nonprivileged, and crucial to the preparation of the case; LBP-06-10, 63 NRC 314 (2006)

page limits on briefs are intended to encourage parties to make their strongest arguments as concisely as possible; CLI-06-10, 63 NRC 451 (2006)

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petitioner is not required to provide an exhaustive discussion in its proffered contention, as long as it meets the Commission's admissibility requirements; LBP-06-4, 63 NRC 99 (2006)

petitioner's reply must be narrowly focused on the legal or logical arguments presented in the applicant/licensee or NRC Staff answer; LBP-06-12, 63 NRC 403 (2006)

petitioners seeking admission of new or amended contentions under 10 C.F.R. 2.309(f)(2) must also satisfy the standard admissibility requirements in 10 C.F.R. 2.309(f)(1); LBP-06-11, 63 NRC 391 (2006)

pleadings submitted by a petitioner acting *pro se* are not always expected to meet the same standards as pleadings drafted by lawyers, but late filing of documents is not condoned; LBP-06-14, 63 NRC 568 (2006)

post-hearing resolution of licensing issues must not be employed to obviate the basic findings prerequisite to a license, including a reasonable assurance that the facility can be operated without endangering the health and safety of the public; CLI-06-1, 63 NRC 1 (2006)

regulations governing appeals from the denial of intervention provide for a notice of appeal with a supporting brief, and for a brief opposing the appeal, but do not provide for reply briefs; CLI-06-9, 63 NRC 433 (2006)

resolution of factual disputes is not the appropriate subject of inquiry at the contention admissibility stage of the proceeding; LBP-06-4, 63 NRC 99 (2006)

Staff counsel had a duty to inform the board of a telephone call from a former expert witness of petitioners because she knew that this information was conceivably relevant to a ruling on a contention; LBP-06-10, 63 NRC 314 (2006)

Staff's agreement with a summary disposition movant's factual or technical positions, either informally or in a formal document such as a Safety Evaluation Report, does not "resolve" the dispute or mean that there is no genuine issue of material fact in dispute; LBP-06-5, 63 NRC 116 (2006)

summary disposition may be entered with respect to any matter (or all of the matters) in a proceeding if the motion, along with any appropriate supporting material, shows that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law; LBP-06-9, 63 NRC 289 (2006)

summary disposition standards set forth in Subpart G are applied in Subpart L proceedings; LBP-06-5, 63 NRC 116 (2006)

the "sound record" factor is foremost in importance in the balancing of six factors, but other factors, especially inappropriate broadening or delay of the proceeding, could overcome it; CLI-06-16, 63 NRC 708 (2006)

the bar against corrective redrafting of contentions is particularly compelling in the context of a request for discretionary intervention because rewriting undermines the very basis for granting discretionary intervention, i.e., the petitioner's demonstrated ability to contribute to the record; CLI-06-16, 63 NRC 708 (2006)

the burden is on opponents of a settlement to come forward and show that the public interest requires the rejection of the settlement and the adjudication of the issues; LBP-06-18, 63 NRC 830 (2006)

the Commission customarily disregards briefs that contain personal attacks on the board; CLI-06-6, 63 NRC 161 (2006)

the Commission has discretion to grant a petition for review, giving due weight to the existence of a substantial question with respect to any of the grounds listed in the Commission's regulations as potential justification; LBP-06-11, 63 NRC 483 (2006)

the Commission has discretion to review all underlying factual issues *de novo*, but it is disinclined to do so where a board has weighed arguments presented by experts and rendered reasonable, record-based factual findings; CLI-06-15, 63 NRC 687 (2006)

the Commission routinely accords substantial deference to licensing boards on matters involving standing and credibility determinations, and thus does not lightly set aside a board's grant of discretionary intervention; CLI-06-16, 63 NRC 708 (2006)

the Commission will reverse a licensing board's determination on discretionary intervention only if the board has abused its discretion; CLI-06-16, 63 NRC 708 (2006)

the Commission's denial of review is not a decision on the merits, but simply indicates that the appealing party identified no clearly erroneous factual finding or important legal error requiring Commission correction; LBP-06-1, 63 NRC 41 (2006)

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the contention admissibility rules do not require a petitioner to prove its case at the contention stage; LBP-06-10, 63 NRC 314 (2006)

the decision of an appellate tribunal should ordinarily be followed in all subsequent phases of that case, provided that the particular question in issue was actually decided or decided by necessary implication; LBP-06-1, 63 NRC 41 (2006)

the fact that deliberative process privilege documents contain important new analyses that are relevant to admitted contentions weighs in favor of their disclosure; LBP-06-3, 63 NRC 85 (2006)

the February 2004 revision of NRC procedural rules no longer permits the amendment and supplementation of petitions and the filing of contentions after the original filing of petitions; LBP-06-10, 63 NRC 314 (2006)

the Federal Rules of Criminal Procedure prescribe the disclosures necessary for a fair balance between criminal defendants' and prosecutors' interests; CLI-06-12, 63 NRC 495 (2006)

the filing in a reply brief of new arguments or new legal theories that opposing parties have not had the opportunity to address are not permitted; CLI-06-9, 63 NRC 433 (2006)

the imminent availability of Staff's authoritative position on a subject that is discussed in deliberative process documents constitutes "other evidence" such that the immediate need for the documents does not outweigh the deliberative process privilege; LBP-06-3, 63 NRC 85 (2006)

the party supporting abeyance of an enforcement proceeding based on the pendency of a criminal case involving the same facts carries the burden of proof and must make at least some showing of potential detrimental effect on the criminal case; CLI-06-12, 63 NRC 495 (2006)

the plain language of a contention will reveal whether it is a claim of omission, a specific substantive challenge to an application, or a combination of both; LBP-06-16, 63 NRC 737 (2006)

the practice of granting or denying discretionary intervention should develop "not through precedent, but through attention to the concrete facts of particular situations; CLI-06-16, 63 NRC 708 (2006)

the precedential value of a licensing board decision that is not affirmed by the Commission is limited to its power to persuade; LBP-06-1, 63 NRC 41 (2006)

the radioactive source posing the danger in a reactor license renewal case is the identical source giving rise to the 50-mile proximity presumption rule for standing in reactor construction permit and operating license proceedings; LBP-06-7, 63 NRC 188 (2006)

the requirement to establish standing does not apply to petitions for discretionary intervention because discretionary intervention was created to afford party status to petitioners unable to demonstrate standing; CLI-06-16, 63 NRC 708 (2006)

the strict contention rule serves to focus the hearing process on real disputes susceptible of resolution in an adjudication, to put other parties on notice of petitioners' specific grievances, and to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions; LBP-06-10, 63 NRC 314 (2006)

the threshold question in determining if certain items must be made available on the High-Level Waste Repository Licensing Support Network is whether the particular items fall within any of the three classes of documentary material; CLI-06-5, 63 NRC 143 (2006)

the weight to be given the proponent's reason for seeking an abeyance turns on the quality of the factual record on which the proponent relies; CLI-06-12, 63 NRC 495 (2006)

there is no requirement that information provided to the board by Staff counsel about a telephone call from petitioner's former expert witness be in the form of a motion; LBP-06-10, 63 NRC 314 (2006)

there is no right to reply to an answer to a motion for summary disposition, but if the answer contains an allegation that is plainly and factually incorrect, the moving party can request the opportunity to respond and to correct the record; LBP-06-5, 63 NRC 116 (2006)

three regulations govern the admissibility of contentions added after an adjudicatory hearing has commenced; LBP-06-14, 63 NRC 568 (2006)

to be admissible, contentions must satisfy the six factors of 10 C.F.R. 2.309(f)(1); LBP-06-4, 63 NRC 99 (2006)

to establish representational standing, an organization must show that at least one of its members may be affected by the licensing action and would have standing to sue in his or her own right, identify that member by name and address, and show that the organization is authorized to request a hearing on behalf of that member; LBP-06-7, 63 NRC 188 (2006)

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to intervene in an NRC proceeding, a petitioner must demonstrate standing and submit at least one admissible contention; LBP-06-10, 63 NRC 314 (2006)

when a contention of omission has been rendered moot, and the intervenor wishes to raise specific challenges regarding the new information, it may timely file a new contention that addresses the admissibility factors of 10 C.F.R. 2.309(f)(1); LBP-06-16, 63 NRC 737 (2006)

when a state advises a licensing board that a proceeding involves a facility within its borders, the board shall not require a further demonstration of standing; LBP-06-7, 63 NRC 188 (2006)

when a substantial and important question of law is presented, Commission review is appropriate; CLI-06-7, 63 NRC 165 (2006)

when an intervenor's challenges in an admitted contention are directed at a draft environmental impact statement because the FEIS has not yet been issued by the Staff, the contention can be construed as a challenge to the FEIS without the need for further modification; LBP-06-8, 63 NRC 241 (2006)

when balancing the six discretionary intervention factors, licensing boards must keep in mind that discretionary intervention is an extraordinary procedure; CLI-06-16, 63 NRC 708 (2006)

when conflicting expert opinions are involved, summary disposition is rarely appropriate; LBP-06-5, 63 NRC 116 (2006)

when NRC Staff is a party in a proceeding and not merely an indifferent bystander to private-party litigation, the role of the government in the litigation weighs in favor of disclosure; LBP-06-3, 63 NRC 85 (2006)

when taking the extraordinary action of allowing discretionary intervention, boards are expected to set out specific findings on each of the six factors; CLI-06-16, 63 NRC 708 (2006)

when the record of a proceeding has long been closed, the burden on a party seeking to reopen the record is significant; CLI-06-19, 63 NRC 19 (2006)

where a hearing request was granted, but no actual notice of hearing was issued, the board approves of the settlement agreement; LBP-06-2, 63 NRC 80 (2006)

where a presiding officer has reviewed an extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed; CLI-06-1, 63 NRC 1 (2006)

RULES OF PROCEDURE

mere speculation concerning a nuclear accident does not demonstrate immediate and irreparable harm necessary for a stay; CLI-06-8, 63 NRC 235 (2006)

SAFE SHUTDOWN SYSTEMS

evaluation of the fire protection properties of Thermo-Lag, Hemyc, and Kaowool materials and licensees' responses to those findings are discussed; DD-06-1, 63 NRC 133 (2006)

SAFETY ISSUES

in a license renewal proceeding, petitioners must demonstrate that an issue focuses on the potential impacts of an additional 20 years of nuclear power plant operation, not on everyday operational issues; CLI-06-4, 63 NRC 32 (2006)

in a mandatory proceeding, a licensing board is to determine whether the application and record of the proceeding contain sufficient information and whether the NRC Staff's review of the application has been adequate; LBP-06-17, 63 NRC 747 (2006)

in an uncontested uranium enrichment proceeding, a licensing board, without conducting a *de novo* evaluation of the application, will determine whether the application and record of the proceeding contain sufficient information to support licensing and whether the Staff's review of the application has been adequate; LBP-06-17, 63 NRC 747 (2006)

See also Generic Safety Issues

SAFETY REVIEW

issues relating to a plant's current licensing basis are ordinarily beyond the scope of a license renewal review, because those issues already are monitored, reviewed, and commonly resolved as needed by ongoing regulatory oversight; LBP-06-7, 63 NRC 188 (2006)

NRC's public health and safety review for a license renewal ordinarily is limited to a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; LBP-06-7, 63 NRC 188 (2006); LBP-06-10, 63 NRC 314 (2006)

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SAFETY-RELATED

each engineered or administrative criticality control/control system must be designated an item relied on for safety; LBP-06-17, 63 NRC 747 (2006)

SANCTIONS

because of an attorney's previous disregard of the NRC's practices and procedures, the Commission orders the Office of the Secretary to screen all filings bearing the offender's signature and not to accept or docket them unless they meet all procedural requirements; CLI-06-4, 63 NRC 32 (2006)

SCHEDULING

under certain conditions, the Commission may approve an alternative schedule for the submittal of a decommissioning plan; LBP-06-6, 63 NRC 167 (2006)

SETTLEMENT AGREEMENTS

a notice of withdrawal combined with an attached memorandum of understanding whereby applicant agrees to perform certain actions and testing, in return for which the intervenor agrees to withdraw, with prejudice, from the litigation, constitutes a *quid pro quo* arrangement which is a settlement agreement within the meaning of 10 C.F.R. 2.338; LBP-06-18, 63 NRC 830 (2006)

allowance is made for petitioner's military service in Iraq that interrupted his operator license testing; LBP-06-2, 63 NRC 80 (2006)

boards are authorized to impose additional requirements as part of a settlement; LBP-06-18, 63 NRC 830 (2006)

if approved by the presiding officer, the terms of the settlement or compromise shall be embodied in a decision or order settling and discontinuing the proceeding; LBP-06-18, 63 NRC 830 (2006)

NRC has a longstanding policy of encouraging the fair and reasonable settlement of contested licensing proceedings; LBP-06-18, 63 NRC 830 (2006)

opponents of a settlement may not simply object to settlement in order to block it, but must show some substantial basis for disapproving the settlement or the existence of some material issue that requires resolution; LBP-06-18, 63 NRC 830 (2006)

the form, content, and board approval provisions of 10 C.F.R. 2.338 are not limited to settlement agreements achieved via alternative dispute resolution, but apply to all settlement agreements that purport to be binding on the proceeding and that are submitted to a board after the notice of hearing; LBP-06-18, 63 NRC 830 (2006)

the process for determining whether a proposed settlement is in the public interest is left to the discretion of the board; LBP-06-18, 63 NRC 830 (2006)

when evaluating whether a settlement in an enforcement proceeding is in the public interest, four factors are considered; LBP-06-18, 63 NRC 830 (2006)

SITE SELECTION

when reviewing a license application filed by a private applicant, NRC may appropriately accord substantial weight to the preferences of the applicant and/or sponsor and should take into account the needs and goals of the parties involved in the application; CLI-06-10, 63 NRC 451 (2006)

SOURCE MATERIAL

all uranium and thorium are source material, but the NRC does not regulate source material in unprocessed ores and source material with insignificant concentrations of radionuclides; CLI-06-14, 63 NRC 510 (2006)

an NRC license is not required to "possess" source material in the form of unprocessed and unrefined ore so long as the ore is not processed or refined; CLI-06-14, 63 NRC 510 (2006)

SPECIAL CIRCUMSTANCES

an agency must affirmatively provide a reasoned explanation of the applicability of a categorical exclusion; LBP-06-4, 63 NRC 99 (2006)

SPENT FUEL STORAGE

a claim that the pads for storing spent fuel are defective is outside the scope of a nuclear power plant operating license renewal proceeding; CLI-06-17, 63 NRC 727 (2006)

such issues are outside the scope of a license renewal proceeding; LBP-06-10, 63 NRC 314 (2006)

STANDARD OF REVIEW

appellant may not simply establish that the licensing board might justifiably have reached the same conclusion as the appellant regarding the petition for discretionary intervention, but must persuade the Commission that a reasonable mind could reach no other result; CLI-06-16, 63 NRC 708 (2006)

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the Commission generally steps in only to correct a licensing board's clearly erroneous findings; CLI-06-15, 63 NRC 687 (2006)

the Commission routinely accords substantial deference to licensing boards on matters involving standing and credibility determinations, and thus does not lightly set aside a board's grant of discretionary intervention; CLI-06-16, 63 NRC 708 (2006)

STANDING TO INTERVENE

"transmission services" is a concept central to the determination of standing in a license transfer proceeding; CLI-06-2, 63 NRC 9 (2006)

a petitioner must demonstrate a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; LBP-06-4, 63 NRC 99 (2006); LBP-06-7, 63 NRC 188 (2006); LBP-06-10, 63 NRC 314 (2006)

a state has standing when a proceeding involves a facility located within the state's boundaries; LBP-06-4, 63 NRC 188 (2006)

a statement purporting to show a real potential for injury sufficient for standing will be rejected if it is too vague and general; CLI-06-2, 63 NRC 9 (2006)

a threatened unwanted exposure to radiation, even a minor one, is sufficient to establish an injury; LBP-06-4, 63 NRC 99 (2006)

an individual may establish standing by showing that his residence is within the geographical area that might be affected by an accidental release of fission products; LBP-06-4, 63 NRC 99 (2006); LBP-06-7, 63 NRC 188 (2006)

an injury may be either actual or threatened, but must lie arguably within the zone of interests protected by the statutes governing the proceeding; LBP-06-10, 63 NRC 314 (2006)

demonstrating proximity-based standing requires a determination that the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences; LBP-06-4, 63 NRC 99 (2006)

in reactor licensing proceedings, persons who reside within a 50-mile radius of a reactor plant are presumed to have standing; LBP-06-7, 63 NRC 188 (2006); LBP-06-10, 63 NRC 314 (2006)

licensing boards are to look to judicial concepts of standing in determining whether a petitioner has established the necessary interest to intervene; CLI-06-6, 63 NRC 161 (2006); LBP-06-4, 63 NRC 99 (2006); LBP-06-10, 63 NRC 314 (2006)

petitioner must show that it has suffered or will suffer a distinct and palpable harm that constitutes injury-in-fact within the zone of interests arguably protected by the governing statute and that this injury can fairly be traced to the challenged action; CLI-06-2, 63 NRC 9 (2006)

the radioactive source posing the danger in a reactor license renewal case is the identical source giving rise to the 50-mile proximity presumption rule for reactor construction permit and operating license proceedings; LBP-06-7, 63 NRC 188 (2006)

the requirement to establish standing does not apply to petitions for discretionary intervention because discretionary intervention was created to afford party status to petitioners unable to demonstrate standing; CLI-06-16, 63 NRC 708 (2006)

under the proximity presumption, a petitioner need not specifically plead injury, causation, and redressability if the petitioner lives within, or otherwise has frequent contacts with, the zone of possible harm from the nuclear reactor or other source of radioactivity; LBP-06-4, 63 NRC 99 (2006)

when a state advises a licensing board that a proceeding involves a facility within its borders, the board shall not require a further demonstration of standing; LBP-06-7, 63 NRC 188 (2006)

STANDING TO INTERVENE, ORGANIZATIONAL

a board properly found no standing where petitioner failed to demonstrate that it, or any of its members, would suffer any concrete or particularized harm from a proposed license renewal; CLI-06-6, 63 NRC 161 (2006)

STANDING TO INTERVENE, REPRESENTATIONAL

a public interest group may establish representational standing by having its affected members authorize the organization to represent them; LBP-06-10, 63 NRC 314 (2006)

to establish representational standing, an organization must show that at least one of its members may be affected by the licensing action and would have standing to sue in his or her own right, identify that member by name and address, and show that the organization is authorized to request a hearing on behalf of that member; LBP-06-7, 63 NRC 188 (2006)

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STATE GOVERNMENT

a state has standing when a proceeding involves a facility located within the state's boundaries;
LBP-06-7, 63 NRC 188 (2006)

See also Agreement State Programs

STATE REGULATORY REQUIREMENTS

to enter into an Agreement State program, a state's regulations must be found compatible with the performance objectives and technical requirements set forth in Subparts C and D, respectively, of the 10 C.F.R. Part 61 regulations; LBP-06-8, 63 NRC 241 (2006)

STATE STATUTES

before it is granted authority to participate in the Agreement State program, a state must pass legislation establishing the authority for that state to conduct a radiation control program, and must further assume and implement that authority through the promulgation of state regulations; LBP-06-8, 63 NRC 241 (2006)

STATES

when a state advises a licensing board that a proceeding involves a facility within its borders, the board shall not require a further demonstration of standing; LBP-06-7, 63 NRC 188 (2006)

See also Agreement States

STATUTORY CONSTRUCTION

"coordination" does not mean that National Environmental Policy Act regulations govern National Historic Preservation Act analysis or vice versa; LBP-06-11, 63 NRC 483 (2006)

effect should be given to all of a statute's provisions; LBP-06-11, 63 NRC 483 (2006)

federal statutes cannot be construed to negate their own stated purposes; LBP-06-1, 63 NRC 41 (2006)

STAY

a government motion for an indefinite enforcement hearing delay must be denied when the government fails to show that the prompt conduct of the NRC hearing process would interfere with the government's prosecution of the criminal charges and when the subject of the order has shown that the delay would continue to deprive him of his chosen livelihood and its anticipated income; LBP-06-13, 63 NRC 523 (2006)

there are no grounds to stay the proceeding to permit petitioners' counsel to depose Staff counsel;
LBP-06-10, 63 NRC 314 (2006)

See also Abeyance of Proceeding

STAY OF EFFECTIVENESS

mere speculation concerning a nuclear accident does not demonstrate immediate and irreparable harm;
CLI-06-8, 63 NRC 235 (2006)

SUBPART J PROCEEDINGS

Class 1 documentary material covers information a party intends to rely upon in support of its position;
CLI-06-5, 63 NRC 143 (2006)

Class 2 documentary material is material that the party in possession knows does not support its position;
CLI-06-5, 63 NRC 143 (2006)

Class 3 documentary materials are "reports and studies" prepared on behalf of potential parties to the proceeding that are relevant to the issues listed in the Topical Guidelines contained in Regulatory Guide 3.69 and must be relevant to the license application; CLI-06-5, 63 NRC 143 (2006)

drafts of the license application are not Class 1, Class 2, or Class 3 documentary material under Subpart J, so the regulations do not require making draft license applications available on the Licensing Support Network; CLI-06-5, 63 NRC 143 (2006)

material that falls within Class 1 or Class 2 is the underlying independent documentary material used (or not used if nonsupporting) by the Department of Energy in formulating its license application;
CLI-06-5, 63 NRC 143 (2006)

the distinction between "preliminary" and "circulated" drafts is a significant one in the Commission's Subpart J regulations; CLI-06-5, 63 NRC 143 (2006)

the purpose of 10 C.F.R. 2.1003 is to define the availability of material, not to provide definitions of types of materials; CLI-06-5, 63 NRC 143 (2006)

the threshold question in determining if certain items must be made available on the High-Level Waste Repository Licensing Support Network is whether the particular items fall within any of the three classes of documentary material; CLI-06-5, 63 NRC 143 (2006)

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SUBPART L PROCEEDINGS

summary disposition is proper only if parties' filings in the proceeding show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law; LBP-06-5, 63 NRC 116 (2006)

SUMMARY DISPOSITION

a showing that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law is necessary; LBP-06-9, 63 NRC 289 (2006)

compliance with the requirement that a summary disposition movant make a sincere effort to contact other parties in the proceeding and to resolve the issues raised in the motion can only be determined from the objective reasonableness of the movant's efforts, as shown by all the facts and circumstances, not by his or her subjective intent; LBP-06-5, 63 NRC 116 (2006)

failure to raise any challenge to a Staff environmental impact statement correction essentially renders that aspect of an intervenor challenge moot, because the intervenor has failed to raise a litigable challenge to the previously identified error; LBP-06-9, 63 NRC 289 (2006)

if an expert asserts a factual or technical position that is so patently incorrect or absurd, a presiding officer must reject that position as constituting a genuine dispute; LBP-06-5, 63 NRC 116 (2006)

in a Subpart L proceeding, the board must apply the summary disposition standard set forth in Subpart G; LBP-06-5, 63 NRC 116 (2006)

it is an abuse of the adjudicatory process to use a motion as a subterfuge for the filing of interrogatories, requests for admission, or other discovery; LBP-06-5, 63 NRC 116 (2006)

it is not proper for a board to untangle conflicting expert affidavits and decide which experts are more correct; LBP-06-5, 63 NRC 116 (2006)

movant bears the initial burden of making the requisite showing that there is no genuine issue as to any material fact, which it attempts to do by means of a required statement of material facts not at issue and any supporting materials (including affidavits, discovery responses, and documents) that accompany its dispositive motion; LBP-06-9, 63 NRC 289 (2006)

opponent must counter each adequately supported material fact with its own statement of material facts in dispute and supporting materials, or the movant's facts will be deemed admitted; LBP-06-9, 63 NRC 289 (2006)

opponents of summary disposition must respond to each of the "material facts" listed by the movant, admitting or denying each of them, and must set forth specific facts, by affidavit or otherwise, showing that there are genuine issues of fact; LBP-06-5, 63 NRC 116 (2006)

Staff's agreement with a movant's factual or technical positions, either informally or in a formal document such as a Safety Evaluation Report, does not "resolve" the dispute or mean that there is no genuine issue of material fact in dispute; LBP-06-5, 63 NRC 116 (2006)

there is no right to reply to an answer to a motion for summary disposition, but if the answer contains an allegation that is plainly and factually incorrect, the moving party can request the opportunity to respond and to correct the record; LBP-06-5, 63 NRC 116 (2006)

when conflicting expert opinions are involved, summary disposition is rarely appropriate; LBP-06-5, 63 NRC 116 (2006)

SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

new information must raise significant environmental impacts that may affect the overall view of the project's impacts; CLI-06-19, 63 NRC 19 (2006)

TAILINGS

See Uranium Mill Tailings

TECHNOLOGICALLY ENHANCED NATURALLY OCCURRING RADIOACTIVE MATERIALS

at the time NRC drafted the regulation defining "background radiation," the term naturally occurring radioactive material was understood to include TENORM; CLI-06-14, 63 NRC 510 (2006)

TENORM is any naturally occurring material not subject to regulation under the Atomic Energy Act whose radionuclide concentrations or potential for human exposure have been increased above levels encountered in the natural state by human activities; LBP-06-1, 63 NRC 41 (2006)

TERRORISM

contentions asserting that the risks associated with terrorist attacks require that the agency prepare an environmental assessment or an environmental impact statement are outside the scope of agency NEPA review and are inadmissible; LBP-06-4, 63 NRC 99 (2006)

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TESTIMONY

- a long delay in an enforcement proceeding could result in the fading of witnesses' memories and runs the risk of witnesses' unavailability; CLI-06-12, 63 NRC 495 (2006)
- a non-expert witness who was identified as the source of information but who had been removed from applicant's witness list could have been subjected to discovery and compelled to provide testimony before the board; LBP-06-15, 63 NRC 591 (2006)

TESTING

- adequacy of methods used to evaluate plant performance during large transients is discussed; LBP-06-5, 63 NRC 116 (2006)

THORIUM

- although thorium is source material, NRC does not regulate it in unprocessed ores and in material with insignificant concentrations of radionuclides; CLI-06-14, 63 NRC 510 (2006)

TOTAL EFFECTIVE DOSE EQUIVALENT

- emissions not directly tied to licensed activity are excluded; CLI-06-14, 63 NRC 510 (2006)
- licensees must ensure that the TEDE to individual members of the public from a licensed operation does not exceed 0.1 rem per year exclusive of the dose contributions from background radiation; LBP-06-1, 63 NRC 41 (2006)

TRANSIENTS

- adequacy of licensee's analytical tools to predict plant performance in large transient events is questioned; LBP-06-5, 63 NRC 116 (2006)

TRANSMISSION SERVICES

- this concept is central to the determination of standing in a license transfer proceeding; CLI-06-2, 63 NRC 9 (2006)

TSUNAMIS

- licensees must have and follow emergency procedures for natural phenomena as appropriate for the geographical location of the facility; LBP-06-12, 63 NRC 403 (2006)

U.S. CONSTITUTION

- the right to hold specific private employment and to follow a chosen profession free from unreasonable governmental interference comes within the liberty and property concepts of the Fifth Amendment; LBP-06-13, 63 NRC 523 (2006)

URANIUM

- although uranium is source material, NRC does not regulate it in unprocessed ores and in material with insignificant concentrations of radionuclides; CLI-06-14, 63 NRC 510 (2006)

See also Depleted Uranium

URANIUM ENRICHMENT FACILITIES

- although not legally binding, Staff guidance documents provide further information about the content of the integrated safety analysis summary and how an applicant can comply with criticality safety regulations; LBP-06-17, 63 NRC 747 (2006)
- applicant is required to provide NRC Staff with a site-specific estimate of the costs for decommissioning the facility, and a description and certification of the means by which funds for decommissioning will be assured; LBP-06-17, 63 NRC 747 (2006)
- applicant must comply with certain performance requirements regarding nuclear criticality safety; LBP-06-17, 63 NRC 747 (2006)
- applicant must provide documentation of its compliance with the performance requirements of section 70.61 in its integrated safety analysis summary; LBP-06-17, 63 NRC 747 (2006)
- applicant must submit a proposed decommissioning funding plan with its license application; LBP-06-15, 63 NRC 591 (2006)
- design of new facilities must provide for criticality control including adherence to the double contingency principle; LBP-06-17, 63 NRC 747 (2006)
- DOE must accept for dispositioning, depleted uranium from a private uranium enrichment facility upon request of the facility operator or appropriate third party; LBP-06-15, 63 NRC 591 (2006)
- Staff's draft and final environmental impact statements are to include a statement that will briefly describe and specify the need for the proposed action; LBP-06-17, 63 NRC 747 (2006)

SUBJECT INDEX

- under the double contingency principle, process designs should incorporate sufficient factors of safety to require at least two unlikely, independent, and concurrent changes in process conditions before a criticality accident is possible; LBP-06-17, 63 NRC 747 (2006)
- URANIUM ENRICHMENT FACILITY PROCEEDINGS**
- a licensing board is to determine, with respect to safety matters, whether the application and record of the proceeding contain sufficient information and whether the NRC Staff's review of the application has been adequate; LBP-06-17, 63 NRC 747 (2006)
- before a uranium enrichment facility can be licensed, a hearing is required to be held on that license application; LBP-06-17, 63 NRC 747 (2006)
- boards must determine whether the review conducted by the NRC Staff pursuant to 10 C.F.R. Part 51 has been adequate; LBP-06-17, 63 NRC 747 (2006)
- contested and uncontested designations apply issue-by-issue, and not to proceedings-at-large; LBP-06-17, 63 NRC 747 (2006)
- in an uncontested proceeding, a licensing board, without conducting a *de novo* evaluation of the application, will determine whether the application and record of the proceeding contain sufficient information to support licensing and whether the Staff's review of the application has been adequate; LBP-06-17, 63 NRC 747 (2006)
- matters of fact and law to be considered are whether the application satisfies the applicable standards in 10 C.F.R. 30.33, 40.32, and 70.23, and whether the requirements of Part 51 have been met; LBP-06-17, 63 NRC 747 (2006)
- regardless of whether the proceeding is contested or uncontested, a licensing board must consider three baseline NEPA issues; LBP-06-17, 63 NRC 747 (2006)
- URANIUM MILL TAILINGS**
- for tailings or wastes to fall within the definition of byproduct material, the plain statutory and regulatory language requires that such tailings or wastes be produced from ore that has been processed for its source material content; LBP-06-1, 63 NRC 41 (2006)
- URANIUM MILL TAILINGS DISPOSAL**
- transfer of depleted uranium from enrichment operations to DOE for deconversion and disposal constitutes a plausible strategy for dispositioning; LBP-06-15, 63 NRC 591 (2006)
- URANIUM MINING AND MILLING**
- NRC does not regulate conventional uranium mining; CLI-06-14, 63 NRC 510 (2006)
- USEC PRIVATIZATION ACT**
- DOE must accept for dispositioning depleted uranium from a private uranium enrichment facility upon request of the facility operator or appropriate third party; LBP-06-15, 63 NRC 591 (2006)
- WAIVER OF OBJECTION**
- a licensing board is authorized to accept assertions of the applicant and Staff that have not been controverted by a party; LBP-06-7, 63 NRC 188 (2006)
- a petitioner that fails to submit a reply brief is foreclosed from challenging the assertions advanced by the licensee and the NRC Staff in their answers, unless it put such assertions in issue in its petition; LBP-06-7, 63 NRC 188 (2006)
- WASTE DISPOSAL**
- See Radioactive Waste Disposal
- WATER POLLUTION**
- allegations of radiological and nonradiological contamination of drinking water are outside the scope of license renewal proceedings because they involve no aging-related issues and are Category 1, or generic, issues; LBP-06-10, 63 NRC 314 (2006)
- WITNESSES**
- a long delay in an enforcement proceeding could result in the fading of witnesses' memories and runs the risk of witnesses' unavailability; CLI-06-12, 63 NRC 495 (2006)
- a non-expert witness who was identified as the source of information but who had been removed from applicant's witness list could have been subjected to discovery and compelled to provide testimony before the board; LBP-06-15, 63 NRC 591 (2006)
- WITNESSES, EXPERT**
- a petitioner denied discretionary intervention could still participate as *amicus curiae* or as an expert witness; CLI-06-16, 63 NRC 708 (2006)

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an expert opinion that merely states a conclusion without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the board of the ability to make the necessary, reflective assessment of the opinion; CLI-06-10, 63 NRC 451 (2006)

FACILITY INDEX

AMERICAN CENTRIFUGE PLANT; Docket No. 70-7004
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ARKANSAS NUCLEAR ONE, Units 1 and 2; Docket Nos. 50-313, 50-368
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H.B. ROBINSON PLANT, Unit 2; Docket No. 50-261
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HIGH-LEVEL WASTE REPOSITORY; Docket No. PAPO-00
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