

**NUCLEAR REGULATORY COMMISSION
ISSUANCES**

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

January 1, 2009 – June 30, 2009

Volume 69
Pages 1 - 746



Prepared by the
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
(301-492-3678)

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PREFACE

This is the sixty-ninth volume of issuances (1–746) 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, 2009, to June 30, 2009.

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 FR 29403 (1991).

The Commission also may appoint Administrative Law Judges 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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Single copies of this publication
are available from
National Technical Information Service
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(301-492-3678)

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Dale E. Klein, Chairman
Gregory B. Jaczko¹
Peter B. Lyons
Kristine L. Svinicki

In the Matter of

**Docket No. 40-7102-MLA
(Amendment Request)**

**SHIELDALLOY METALLURGICAL
CORPORATION
(Decommissioning of the Newfield,
New Jersey Facility)**

January 27, 2009

MEMORANDUM AND ORDER

This proceeding stems from Shieldalloy Metallurgical Corporation's (Shieldalloy or Licensee) request for a license amendment to authorize the decommissioning of its Newfield Facility, located in Newfield, New Jersey.² In March 2007, the Atomic Safety and Licensing Board granted the New Jersey Department of Environmental Protection's (New Jersey) hearing request on the adequacy of

¹ Section 201 of the Energy Reorganization Act, 42 U.S.C. § 5841, provides that action of the Commission shall be determined by a "majority vote of the members present." Commissioner Jaczko was not present when this item was affirmed. Accordingly the formal vote of the Commission was 3-0 in favor of the decision. Commissioner Jaczko offered a separate dissenting opinion which follows this decision.

² See Notice of Consideration of Amendment Request for Decommissioning for Shieldalloy Metallurgical Corp., Newfield, NJ and Opportunity to Request a Hearing, 71 Fed. Reg. 66,986 (Nov. 17, 2006).

Shieldalloy's proposed Decommissioning Plan (Revision 1a).³ More recently, the Board issued a Memorandum bringing certain issues to the Commission's attention.⁴ Both the Licensee and the NRC Staff sought leave from the Commission to respond to the Board's Memorandum.⁵ The Commission allowed any party to respond.⁶ The NRC Staff, the Licensee, and New Jersey submitted briefs to the Commission.⁷

The Board's Memorandum raised essentially two concerns. The Board's initial concern was the extraordinarily slow pace of this proceeding. Originally, the Staff estimated that it would issue a final Safety Evaluation Report (SER) in January 2008, a Draft Environmental Impact Statement (DEIS) in March 2008, and a Final Environmental Impact Statement (FEIS) in October 2008.⁸ According to the Staff's latest estimates, the DEIS will not be issued until October 2009, and the final SER and FEIS not until December 2009 and July 2010, respectively.⁹ Given the circumstances, a hearing on the adequacy of Shieldalloy's Decommissioning Plan would not be held until well over 3 years after the Board granted New Jersey's hearing request, and over a decade since Shieldalloy ceased manufacturing operations (in 1998).¹⁰ The current delay stems at least partially from Shieldalloy's intention to submit another revision of its Decommissioning Plan, to address many of the issues raised by the Staff in Requests for Additional Information (RAIs) transmitted in July 2007.¹¹

³ LBP-07-5, 65 NRC 341, 353-59 (2007). The Board admitted one contention, and deferred consideration of New Jersey's other contentions pending completion of the Staff's safety and environmental review. *See id.* at 359-62.

⁴ *See* Memorandum (Bringing Matter of Concern to Commission's Attention), LBP-08-8, 67 NRC 409 (Board Memorandum).

⁵ Shieldalloy's Unopposed Motion for Leave to File a Response to Licensing Board's Memorandum (Bringing Matter of Concern to Commission's Attention) (June 10, 2008); NRC Staff's Motion for Leave to Respond to LBP-08-08 (June 12, 2008).

⁶ *See* Order (June 18, 2008) (unpublished).

⁷ NRC Staff's Response to LBP-08-08 (July 3, 2008) (Staff Response); Shieldalloy's Response to Licensing Board's "Memorandum (Bringing Matter of Concern to Commission's Attention)" (July 3, 2008) (Shieldalloy Response); State of New Jersey's Reply to the July 3, 2008 NRC Staff and Shieldalloy Submissions to the Commission (July 10, 2008) (New Jersey Reply).

⁸ *See* Board Memorandum, LBP-08-8, 67 NRC at 412.

⁹ *See* NRC Staff's Tenth Status Report (December 5, 2008).

¹⁰ *See* Board Memorandum, LBP-08-8, 67 NRC at 409, 413-15.

¹¹ *See id.* at 415; Staff Response at 12-15. As the Staff explains, a significant issue has been determining proper leach rate testing and sampling protocols to assess the leachability of slag and baghouse dust at the Newfield site. *See* Staff Response at 14-15. In its Ninth Status Report, the Staff indicated that Shieldalloy finalized its leach rate testing protocol in September 2008, and plans to take more than fifty additional samples from the nine slag and baghouse dust piles at the site. *See* NRC Staff's Ninth Status Report (Oct. 10, 2008) at 2.

(Continued)

The Board also expressed concern over whether there are adequate protective measures in place to protect nearby residents.¹² Recognizing its lack of authority to oversee or “inquire further” into the Staff’s performance of its regulatory oversight responsibilities, or to “order some [interim] corrective measures,” if any are called for, the Board referred its concerns to the Commission.¹³

Addressing the Board’s Memorandum, the Staff responds that Shieldalloy already has “certain protective measures in place at the Newfield site that are essentially the same as those contemplated by the [Decommissioning Plan].”¹⁴ These include security and access control measures, and a radiation monitoring program. The Staff also states that Shieldalloy has built a berm on the south side of the storage area at the Newfield site, to assure that rainwater runoff will not transport baghouse dust outside the storage area.¹⁵ The Staff stresses that there is “no evidence of any violation or potentially hazardous condition that would support ordering Shieldalloy to implement an engineered barrier [cover over the slag and baghouse dust] as an interim protective measure.”¹⁶ The Staff further stresses that it “continues to monitor and inspect the site,” and that recent “inspections have not revealed any current threat to public health or safety associated with the Newfield site.”¹⁷

Based upon the information provided to us, we have no reason to conclude that there are ongoing violations of NRC health and safety standards at the Newfield site. We note, further, that New Jersey concurs in the Staff’s assessment that an interim protective barrier over the slag and baghouse dust at the site “may prolong and complicate decommissioning.”¹⁸

New Jersey, however, urges the Staff (and Shieldalloy) to consider whether other interim measures are warranted to prevent any “contamination until the final decommissioning is completed.”¹⁹ In particular, New Jersey raises a concern about the Hudson Branch Creek, located near the Newfield facility. New Jersey claims, for example, that sampling results from the creek’s surface water and soil sediment show elevated levels of uranium-238, thorium-232, and radium-

Prior to accepting for technical review Shieldalloy’s Decommissioning Plan Revision 1a, the Staff had rejected for docketing other earlier-submitted decommissioning plans for the Newfield site. The Staff rejected Revision 0 (submitted August 2002) and Revision 1 (submitted October 2005). See Board Memorandum, LBP-08-8, 67 NRC 414-15.

¹² See *id.* at 413-14, 417, 418.

¹³ *Id.* at 419.

¹⁴ Staff Response at 15.

¹⁵ *Id.* at 17.

¹⁶ *Id.* at 18.

¹⁷ *Id.* at 6.

¹⁸ New Jersey Reply at 8.

¹⁹ See *id.*

226.²⁰ New Jersey requests an adequate characterization of this contamination, an investigation into the source of contamination, a plan to prevent any ongoing contamination (if there is any), and remediation of existing contamination.²¹

While the Staff's brief does not address the Hudson Branch contamination, the Commission is aware that the Staff has issued Requests for Additional Information, calling on Shieldalloy to provide additional characterization data and other information on the contamination.²² Apparently, the Staff has not yet resolved whether the NRC (or New Jersey) has jurisdiction over the radiological contamination in the Hudson Branch.²³ The NRC will assert jurisdiction if the contamination is attributable to Shieldalloy or another NRC licensee.²⁴ After reviewing Shieldalloy's responses and information from other sources, the Staff will determine whether the NRC has jurisdiction over the radiological contamination and, if so, whether and to what extent the contamination requires remediation.²⁵ We expect that the Staff will timely and thoroughly address these questions.

In addressing the creek contamination, New Jersey also refers to the berm constructed on the south side of the storage area as an interim protective measure. Because the berm "does not surround the entire pile" of materials, New Jersey seeks additional characterization of the soil and any surface water outside the fence line, to assure that runoff to the north, east, and west sides of the pile does not pose an offsite contamination concern.²⁶ New Jersey states that there are materials other than slag, such as construction debris and contaminated soil, "that could potentially leave the site via runoff."²⁷ Whether additional data are needed regarding the effectiveness of the existing berm to deter potential offsite migration is a matter that the Staff should discuss with Shieldalloy and New Jersey.

We acknowledge the Board's concern with the extraordinary lag of time between Shieldalloy's cessation of operations and this adjudicatory proceeding on a decommissioning plan, and the continuing delays since the proceeding began. The Board made "clear" that it had no "criticism of anything that the NRC Staff has substantively done in the course of its technical review,"²⁸ and we likewise

²⁰ See *id.* at 7, and attached Exhibit 2 at 1-3.

²¹ New Jersey Reply at 9.

²² See, e.g., Letter from Keith McConnell, NRC, to Ms. Patricia Gardner, New Jersey Department of Environmental Protection (Aug. 18, 2008) (McConnell Letter) (ADAMS Accession No. ML082040537); Request for Additional Information, Cover Letter (July 5, 2007) (ADAMS Accession No. ML071640267) (Cover Letter), and attached RAIs (ADAMS Accession No. ML071640287) at 7-8.

²³ See McConnell Letter at 1.

²⁴ See *id.* at 2.

²⁵ See *id.*

²⁶ New Jersey Reply at 7.

²⁷ *Id.*

²⁸ Board Memorandum, LBP-08-8, 67 NRC at 419.

discern no failure in the Staff's technical review, which must consider and resolve all relevant safety and environmental issues. The Staff appears to be conducting a detailed, careful review, but to complete its review needs and has requested much additional information from Shieldalloy. We expect Shieldalloy to respond promptly and accurately to Staff inquiries. The Staff has advised Shieldalloy that the Staff may suspend or terminate its review of the Decommissioning Plan if Shieldalloy fails to provide "complete and high-quality responses."²⁹

We also expect that, absent compelling circumstances, the Staff will accord sufficient priority and devote sufficient resources to meeting its current estimated safety and environmental review schedule. If in the course of its review, the Staff finds that any additional interim protective measures at the site are warranted, we expect it will take prompt appropriate action.

Commissioner Jaczko, in his dissent, echoes the Board's concern with the delays in decommissioning the Newfield facility — a concern that we share. We also agree, as espoused in the dissent, that unrestricted release is the preferable method for terminating radioactive materials licenses.³⁰ But we differ with the dissent in that it addresses a generic matter that was not raised by the Board's Memorandum and offers a position on a question that is premature to address here. Many of the issues raised in the dissent are currently pending before the Board and may be dealt with in the context of the Board's adjudication, if appropriate, with the benefit of full briefing by the parties.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 27th day of January 2009.

²⁹ See Cover Letter at 1.

³⁰ See NUREG-1757, "Consolidated Decommissioning Guidance; Decommissioning Process for Materials Licensees," Vol. 1, Rev. 2 (Sept. 2006), at M-1.

Commissioner Jaczko, Dissenting

I dissent from the Commission's Memorandum and Order. It is our job to make sure Shieldalloy fully cleans up this site. For two reasons, I think we may not be headed in the right direction to make sure this happens in a reasonable time. First, I believe that part of the generic guidance on decommissioning in NUREG-1757, with respect to long-term institutional control under 10 C.F.R. § 20.1403, is flawed and should be reconsidered. Should Shieldalloy follow that guidance and the Commission then find that it has to revise or withdraw it, significant delay in decommissioning the site could result. To avoid this result, the Commission could revisit that guidance now. Second, I am not convinced that the potential to achieve unrestricted release of Shieldalloy's Newfield site has been adequately explored. The following explains each of these two points in detail.

With respect to the generic guidance in NUREG-1757, the part of the guidance that applies the requirements in 10 C.F.R. Part 20 governing restricted release and in 10 C.F.R. § 40.42 governing license termination seems to me inconsistent with the text and intent of the regulations. *See* NUREG-1757, "Consolidated Decommissioning Guidance; Decommissioning Process for Materials Licensees," Vol. 1, Rev. 2 (Sept. 2006) (NUREG-1757). Specifically, the current guidance regarding the "possession only license/long term control" (POL/LTC) option appears to me logically flawed, and I believe we should generically revisit this guidance. In addition, if this flawed guidance is applied at Shieldalloy's Newfield site, significant additional delay to decommissioning this site could result. We would be remiss if we did not act now to eliminate this potential source of additional delay.

The regulations that are the basis for my concern are as follows: In short, section 40.42(c) provides that, with respect to possession, a Part 40 license, such as that held by Shieldalloy, continues in effect after expiration until decommissioning is completed. During that time, a licensee must limit actions to those related to decommissioning and control access to restricted areas until they are suitable for release. Simply stated, the licensee must meet Part 20 with respect to the materials remaining on the site.

Further, to decommission the site under Part 20, the licensee must meet the standards in section 20.1402 for unrestricted release of the site, i.e., the amount of radioactive material left on the site is not dangerous, or the licensee must satisfy section 20.1403 or section 20.1404. Under section 20.1403, the site will be considered for restricted release if further reductions in residual radioactivity necessary to comply with the provisions of section 20.1402 would result in net public or environmental harm or need not be made because residual levels associated with the restricted conditions are as low as reasonably achievable (ALARA). Whether a site is suitable for unrestricted or restricted release, however,

the license is terminated upon the completion of decommissioning in accordance with Part 20. Neither the licensee nor the NRC retains any continuing obligation or jurisdiction, respectively, with respect to the site, unless new information shows that the Part 20 criteria were not met and the residual radioactivity remaining on the site could result in a significant threat to public health and safety. *See* 10 C.F.R. § 20.1401(c); NUREG-1757, Appendix M at M-2 to M-3. The license is terminated even if the licensee decommissions the site in accordance with alternate decommissioning criteria pursuant to section 20.1404.

In contrast to the regulations described above, all of which are directed to license termination, the guidance in NUREG-1757 introduces the concept of a “new type of possession-only license [that] is referred to in this guidance as a long-term control (LTC) license[.]” NUREG-1757, Appendix M, M.3 at M-9. Such an LTC license (or possession-only license, POL) could remain outstanding indefinitely. *See id.* at M-14 (“The LTC license is not necessarily permanent”). Nowhere is such an LTC license mentioned or even hinted at in the License Termination Rule in Part 20, or in the rule on the timeliness of decommissioning (as applicable in this proceeding, 10 C.F.R. § 40.42).

In my view, issuance of an LTC license defeats the purpose of Subpart E of Part 20, “Radiological Criteria for License Termination.” Moreover, there is no need to issue such a license, because the expired license held by the licensee continues to exist in accordance with section 40.42, and *already* requires the licensee to provide “institutional control” over the site in accordance with section 40.42(c) and Part 20. Under this existing license, the NRC can require any action that it might require under the LTC license.

In my view, we should just require licensees to comply with Part 20 so that their sites may be released (with or without restrictions) and their licenses terminated. If a particular licensee is unable to do so, then we should refer the site to some other governmental agency with the authority to clean it up or request legislation from Congress to address the situation. Depending on the circumstances, a “safe storage” option during which the licensee accumulates funds for site cleanup might also be an option. In the interim until the licensee or some other agency actually cleans up the site, of course, the licensee will control access and otherwise provide adequate protection to the public health and safety with respect to the materials remaining onsite by satisfying Part 20 under its existing, though expired, license.

With respect to Shieldalloy’s Newfield site, I offer no opinion on whether or not Shieldalloy can or will satisfy the requirements of section 20.1403 for restricted release, or on the adequacy of its proposed decommissioning plan in light of the current generic guidance in NUREG-1757. Should the Commission decide to request the Staff to reexamine that generic guidance regarding restricted release and changes result, Shieldalloy will of course need to consider those changes, and may need to make conforming changes to its proposed decommissioning plan.

With respect to the second point, whether the potential to achieve unrestricted release of Shieldalloy's Newfield site has been adequately explored, I first note the purpose of 10 C.F.R. § 40.42, which governs the expiration and termination of licenses and decommissioning of source material sites, such as the Newfield site. The purpose of the rule in which the current form of that section was promulgated was to "require timely decontamination and decommissioning by nuclear material licensees." "Timeliness in Decommissioning of Materials Facilities," 59 Fed. Reg. 36,026 (July 15, 1994) (Timeliness Rule SOC). As the Timeliness Rule SOC states, "[t]he rule is intended to reduce the potential risk to public health and the environment from radioactive material remaining for long periods of time at [materials] facilities after licensed activities have ceased." *Id.*

In general, I agree with the Licensing Board in its opinion in LBP-08-8 that the decommissioning of the Shieldalloy Newfield site is taking an unduly long time. As the Board has pointed out, licensed activities at the Newfield site ceased in 1998, and the decommissioning process began then. I also recognize, as the Staff notes, that numerous areas of the Newfield site have already been decommissioned. NRC Staff's Response to LBP-08-8 at 6 (July 3, 2008). Nonetheless, slag and "baghouse dust" accumulated on an 8-acre portion of the Newfield site, among other things, remain to be decommissioned. *Id.*

Much of the delay in addressing this slag and baghouse dust and completing the decommissioning of this site can be attributed to the Licensee's inadequate proposals for decommissioning. As the Board indicated, decommissioning this site would seem to be a simple matter of removing waste offsite for disposal. It only becomes complicated when the Licensee seeks to dispose of the waste onsite, with all the attendant characterization work and analyses necessary to show that such a proposal satisfies Part 20. Our implementation of our decommissioning rules at the Newfield site has resulted in radioactive material remaining at the Newfield site for a prolonged time.

The preferred path for decommissioning in Part 20 is to achieve unrestricted release of a site. The rule states:

A site will be considered acceptable for license termination under restricted conditions if:

(a) The licensee can demonstrate that *further* reductions in residual radioactivity necessary to comply with the provisions of § 20.1402 would result in net public or environmental harm or were not being made because the residual levels associated with restricted conditions are ALARA.

10 C.F.R. § 20.1403 (emphasis added). Section 20.1403 presumes that contaminated material has been removed offsite until the stated criteria are met; thus, offsite disposal is the first option. *See also* Radiological Criteria for License Termination, 62 Fed. Reg. 39,058, 39,065 (July 21, 1997). In the rulemaking

promulgating this section, the Commission stated that it was taking “[a] tiered approach of unrestricted use and allowing restricted use if certain conditions are met[.]” *Id.* Moreover, section 40.42 is written in terms of “releasing” buildings or areas in accordance with NRC criteria. *See, e.g.*, 10 C.F.R. § 40.42(d).

Licenses do not get to choose between restricted and unrestricted release to suit their own purposes. Rather, the Licensee should demonstrate that it will follow the “tiered” approach to decommissioning described above, and that release of the site will be restricted only if one or more of the conditions in section 20.1403(a) is met. The unavailability of funding for decommissioning adequate to achieve unrestricted release of a site is not one of the conditions specified in section 20.1403(a). If none of the section 20.1403 conditions is met and funding is inadequate to achieve unrestricted release of the Newfield site, some other course of action, such as referral of the site to another agency for cleanup or licensee control and maintenance of the site until additional funds are accumulated, may be necessary. After all, if Shieldalloy invested the \$8 million it has in remaining funds, it can reasonably be assumed that those funds would eventually reach the \$33 million price tag envisioned in the application as necessary to remove the waste from the site. Even assuming only a 2% real rate of return (interest rate minus inflation), the \$8 million would grow to \$30 million in roughly 60 years. While that might be a longer time frame than some would prefer, it is far shorter than a plan to leave the waste onsite permanently.

In view of the above, the agency should be sure to explore all options for achieving unrestricted release of the entire Newfield site. Since it seems to me that we have not yet done so, I would have ordered the parties to provide us briefs on what efforts have been made to achieve unrestricted release of the site. After considering those briefs, we could have then provided direction to the Staff, if necessary. (I would *not* have requested the parties’ views on whether the criteria in section 20.1403 justifying restricted release are met, as this issue will likely be the subject of the litigation pending before the Board, and is not yet ripe for us to consider.)

In sum, I believe we would be remiss in not directing the Staff to explore all options aimed at achieving unrestricted release of the entire Newfield site. Because I believe the Staff’s current direction in entertaining the possibility of restricted release of the site is problematic with respect to long-term institutional control, and it seems to me that offsite disposal of some portion of the waste currently onsite might be accomplished, I would take a different approach.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ann Marshall Young, Chair
Dr. Richard F. Cole
Dr. Fred W. Oliver

In the Matter of

Docket No. 40-8943
(ASLBP No. 07-859-03-MLA-BD01)
(License Amendment)

CROW BUTTE RESOURCES, INC.
(North Trend Expansion Project)

January 27, 2009

In this materials license amendment proceeding the licensing board admits a contention relating to foreign ownership, finds that a separate showing of standing for each contention is not required, denies a motion for sanctions, allows litigation of newly submitted allegations regarding arsenic contamination and health effects under an already-admitted contention, permits participation of tribal treaty council, and recommends that the Commission order that the hearing be conducted under the provisions of 10 C.F.R. Part 2, Subpart G.

RULES OF PRACTICE: STANDING, CONTENTIONS

Petitioners are not required to show standing for each contention separately; once a party demonstrates that it has standing to intervene on its own accord, that party may then raise any contention that, if proved, will afford the party relief from the injury it relies upon for standing, and there is no requirement for any “nexus” between the injury and the contention. Case law to the effect that a plaintiff in federal court must demonstrate standing separately for each “form of relief sought” and for each separate “claim” does not translate into a

requirement that a petitioner must show standing for each contention submitted in an NRC proceeding; contentions are comparable to neither “forms of relief” nor Article III “claims,” but are instead comparable to various “grounds” that may be asserted in opposition to a proposed agency action at issue, approving an application for a license, license amendment, or other authorization. In sum, a showing of standing need be made only once with regard to any one proposed agency action.

RULES OF PRACTICE: CONTENTIONS

Contention alleging foreign ownership of applicant, failure to disclose, and various ramifications of such ownership, is found to be admissible. In addition to meeting the requirements of 10 C.F.R. § 2.309(f)(1)(i), (ii), and (v), the contention is “within the scope of the proceeding” and “material to the findings the NRC must make to support the action” at issue, and supported by “sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact,” as required by 10 C.F.R. § 2.309(f)(1)(iii), (iv), and (vi). Section 40.32, which concerns the requirements for issuance of a materials license, includes as a requirement that “issuance of the license will not be inimical to the common defense and security or to the health and safety of the public”; the phrase “common defense and security” has been interpreted in NRC case law as referring to “the absence of foreign control over the applicant”; and Intervenor’s urge that Applicant’s foreign ownership is “key” to the determination whether the Applicant’s current and proposed operations are within “the best interests of the US general public.” Applicant acknowledges that its ultimate owner is a Canadian company, on the significance and consequences of which the parties are in dispute; under 10 C.F.R. § 40.2, relevant provisions of Part 40 “apply to all persons in the United States” and not to those outside the United States, even those in Canada, which brings into question whether the “applicant’s proposed . . . procedures are adequate to protect health and minimize danger to life or property” under 10 C.F.R. § 40.32(c); and it would be inappropriate to deny the admission of Contention E based on arguments that issues raised are appropriate for consideration only later, in any export license proceedings.

RULES OF PRACTICE: SANCTIONS AGAINST PARTIES

Given the Commission’s calls for licensing boards to sanction parties that violate NRC rules, which do not have the purpose of relieving intervenors of their adjudicatory expenses but would merely have an incidental effect as part of an overall effort to ensure the expeditious management of the licensing process, in appropriate situations licensing boards might be said to have the authority to

impose monetary sanctions on any party to any other party without violating the prohibition of section 502 of the Energy and Water Development Appropriations Act of 1993, which provides that NRC appropriations shall not “be used to pay the expenses of, or otherwise compensate, parties intervening in regulatory or adjudicatory proceedings.” In this instance, however, the motion for monetary sanctions is denied, because the requisite showing of “willful, prejudicial, and bad-faith behavior” is not shown.

RULES OF PRACTICE: CONTENTIONS

A new contention based on a new study that supports the hypothesis that low levels of exposure to inorganic arsenic in drinking water may play a role in diabetes prevalence, connected with additional newly discovered information about a high incidence of pancreatic cancer in areas near the proposed new site, and already existing information about a link between diabetes and pancreatic cancer, and about allegations concerning arsenic in water returned to relevant aquifers during the course of the mining process, is subsumed within a previously admitted contention regarding alleged contamination of water and resulting harm to public health and safety, and may thus be litigated as part of that contention, and not as a new contention.

RULES OF PRACTICE: PARTICIPATION

The Black Hills/Oglala Delegation of the Sioux Nation Treaty Council is permitted to participate in this proceeding, subject to appropriate coordination and consolidation of the presentations of the council with those of the Oglala Sioux Tribe and the intervenors.

RULES OF PRACTICE: HEARING PROCEDURES

Section 2.700 of 10 C.F.R. provides that Subpart G hearing procedures apply only to certain enumerated types of proceedings, not including proceedings such as this materials license case but including “any other proceeding as ordered by the Commission.” The licensing board therefore does not grant Intervenors’ request to conduct this proceeding under the provisions of Subpart G, but does recommend to the Commission that it order that the proceeding be conducted as a Subpart G proceeding, based on considerations including alleged failures to disclose certain information; the nature of the issues in this case, which are of a sort that would benefit from having live witnesses subject to cross-examination and available to question for clarification during oral testimony; ongoing disputes between the parties and allegations relating to motive, analogous to that at issue

under 10 C.F.R. §§ 2.310(d) and 2.700; more effective sharing of information and management by the board under the discovery provisions of Subpart G; and the greater transparency associated with a Subpart G hearing, which is particularly appropriate given community and tribal interest in the proceeding.

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MEMORANDUM AND ORDER

(Ruling on Foreign Ownership and Arsenic Contentions and Other Pending Matters)

I. INTRODUCTION AND BACKGROUND

This Memorandum and Order follows our earlier ruling in LBP-08-6¹ and, like it, concerns the Application of Crow Butte Resources, Inc. (CBR, Crow

¹ *Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241 (2008).

Butte, Crow Butte Resources, or Applicant), to amend its operating license for its in-situ leach (ISL) uranium recovery facility in Crawford, Dawes County, Nebraska,² to permit development of additional ISL uranium mining resources in a nearby location. In LBP-08-6 we granted the hearing requests and admitted three contentions of Petitioners (now Intervenors) Western Nebraska Resources Council (WNRC), Owe Aku/Bring Back the Way (Owe Aku), and Debra L. White Plume, challenging certain aspects of the Application. We also ruled that the Oglala Sioux Tribe may participate in the hearing pursuant to 10 C.F.R. § 2.315(c), and now note that the Tribe has indicated its intent to participate as to Contentions A, B, and C.³ Additional information concerning ISL mining, the standing of Intervenors to participate in the proceeding, the contentions we then admitted, and related matters may be found in LBP-08-6.

In this Memorandum and Order we rule on (1) Intervenors' Contention E, which concerns the alleged ownership of the Applicant by Cameco, Inc., a Canadian corporation, Applicant's alleged failure to disclose such foreign ownership in its Application, and certain alleged consequences arising from such foreign ownership; (2) certain additional matters related to Contention E, including whether Intervenors must show standing separately with regard to Contention E, as argued by Applicant, and Intervenors' request for certain sanctions (alternatively a default order with regard to certain facts or payment of the monetary costs of the Intervenors in addressing an NRC Staff motion for reconsideration that was subsequently withdrawn); (3) a new contention Intervenors seek to have admitted, regarding arsenic contamination and health impacts allegedly resulting from Crow Butte's mining operations; (4) the participation of the Black Hills/Oglala Delegation of the Great Sioux Nation Treaty Council in this proceeding; (5) the Intervenors' request for a Subpart G hearing; and (6) an Unopposed Motion to Make Filings by E-mail.

We herein find that Intervenors are not required to show standing separately for Contention E; admit Contention E; deny Intervenors' request for sanctions; permit Intervenors' allegations regarding arsenic and health impacts (diabetes and pancreatic cancer) allegedly resulting from Applicant's mining operations to be adjudicated in connection with previously admitted Contention B; rule that the Black Hills/Oglala Delegation of the Great Sioux Nation Treaty Council may participate in the proceeding under 10 C.F.R. § 2.315(c); refer to the Commission our recommendation regarding Intervenors' request for a Subpart G hearing; and grant the motion to permit filings by e-mail, as specified below.⁴

² Source Materials License SUA-1534.

³ See Official Transcript of Proceedings (Tr.) at 421.

⁴ See *infra* Section VII.

II. INTERVENORS' CONTENTION E AND RELATED MATTERS

In Contention E, Intervenor's allege a failure on the Applicant's part to disclose in its Application its ownership by a foreign corporation, and various consequences of such foreign ownership.⁵ At this point it might be said that the contention deals more with the significance than the disclosure of such ownership, however, given that Applicant, as we discuss herein, has acknowledged that the ultimate owner of Crow Butte is in fact Cameco, a Canadian corporation.⁶ We address this and related matters below, in our ruling on the admissibility of the contention. First, however, we address a threshold issue raised by the Applicant, to the effect that we should not consider the contention at all because Intervenor's have not shown standing to submit it, as Applicant insists they must do.⁷ We next turn to the admissibility of Contention E under the provisions of 10 C.F.R. § 2.309(f)(1)(i)-(vi), and conclude this section of this Memorandum by addressing Intervenor's request for sanctions against the NRC Staff with regard to a motion for reconsideration relating to Contention E that Staff submitted and then withdrew.

A. Whether Separate Showing of Standing to Raise Contention E Is Required

Applicant argues that Intervenor's must show standing with regard to Con-

⁵ See *infra* Section II.B.1.

⁶ See *infra* note 78; Tr. at 475-77.

⁷ We note Applicant's argument that, in its view, "[h]aving concluded that Petitioner's have standing for Contentions A and B based on claims under 10 C.F.R. §§ 40.32(c) and 51.45, the Licensing Board must also assess standing for Contention E under 10 C.F.R. § 40.32(d)." Applicant's Reply to Petitioner's Filing re Standing (Aug. 29, 2008) at 4 [hereinafter Applicant 8/29/08 Reply]. We did not, of course, in LBP-08-6, "conclude that Petitioner's have standing for Contentions A and B." We found that they had standing to participate in the proceeding, with no such limitation. Applicant urges that we in effect recast our prior rulings on standing in accord with its arguments regarding Contention E. We consider and address these arguments herein.

We note as well Applicant's reference to "the Board's apparent decision to consider the ownership of Crow Butte to be an issue within the scope of this narrow license amendment proceeding." *Id.* at 3. We can understand that the Applicant may have gathered in oral argument that we had some questions regarding its assertions about the nature of this proceeding and its scope vis-à-vis Contention E, but we cannot commend its characterization. Our goal in providing for both oral argument and further briefing on the issues involved with Contention E was to afford Applicant, as well as all other parties, full opportunity to attempt to persuade us to accept their respective positions through reasoned legal analysis of the issues. Our decision herein, however, is the first we make on these issues, and we make it only after careful consideration of the arguments of all parties.

We caution Applicant and all parties to use care in characterizing not only any Licensing Board actions, but also those of any other parties, in the interest of civility and the most effective progress through the course of this legal proceeding.

tention E specifically and separately from its standing to litigate the other contentions already admitted herein, in order to raise and litigate Contention E.⁸ We find this argument to be without merit.

First, no language in the NRC rule on standing and contentions even suggests such a requirement.⁹ This is significant given that NRC intervention rules are well known to be strict,¹⁰ and any such requirement, if it existed, should be found somewhere in the rule, in at least comparable specificity to that found in 10 C.F.R. § 2.309(d). This section spells out the standing requirements, including those in subsection (d)(1)(iii), requiring a petitioner to state “the nature and extent of [his/her/its] property, financial or other interest in the proceeding” — a concept separate and apart from that of what constitutes a “contention.” We note in this regard that the source of the practice in NRC proceedings of referring to judicial standing concepts is a 1976 Commission decision in which it “affirm[ed] the Appeal Board’s determination that [petitioners in the case did] not meet the judicial standing test.”¹¹ The Commission decided that “in determining whether a petitioner . . . has alleged an ‘*interest* [which] may be affected by the proceeding’ within the meaning of Section 189a of the Atomic Energy Act and [then-existing] Section 2.714(a) of NRC’s Rules of Practice, contemporaneous judicial concepts of standing should be used,” including those regarding the “zone of interests” test.¹² But the decision contains no mention of the need to show standing for each separate contention submitted by any petitioner.

Further, although a petitioner bears the burden of demonstrating standing, in ruling on standing a licensing board is to “construe the petition in favor of the petitioner,”¹³ an approach inconsistent with Applicant’s argued approach. Nor is there any other Commission authority to support Applicant’s argument.¹⁴

⁸ See Applicant’s Brief Regarding Foreign Ownership Issues (May 23, 2008) at 12 [hereinafter Applicant 5/23/08 Brief].

⁹ See 10 C.F.R. § 2.309.

¹⁰ See, e.g., *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-146, 6 AEC 631, 633-34 (1973).

¹¹ *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 614 (1976).

¹² *Id.* at 613-14 (emphasis added).

¹³ *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995).

¹⁴ We note Applicant’s suppositions that the lack of more Commission decisions addressing the issue, whether standing must be shown with regard to each contention raised, may be because most Commission adjudications “involve power reactor [cases] subject to the ‘proximity presumption,’” which permits “petitioners [to] raise any issue linked to offsite injury within the scope of a proceeding,” or “may simply reflect a failure . . . to incorporate contemporaneous judicial concepts of standing into NRC proceedings — a [*sic*] oversight that this Board now has the opportunity to

(Continued)

To the contrary, the Commission stated in the *Yankee Atomic Electric Company* license decommissioning case that, “once a party demonstrates that it has standing to intervene on its own accord, that party may then raise any contention that, if proved, will afford the party relief from the injury it relies upon for standing.”¹⁵ Applicant interprets this as requiring a “nexus between the injury . . . and the contention,”¹⁶ and argues, based on *Yankee*, that “the injuries alleged by Petitioners — potential harm from contaminated surface water and groundwater — are not caused by the fact that a domestic entity has a foreign ‘grandparent.’”¹⁷ This reasoning turns the Commission’s *Yankee* ruling on its head. The Commission actually, in citing the Supreme Court’s decision in *Duke Power Co. v. Carolina Environmental Study Group*¹⁸ as support for its own ruling, specifically noted that the *Duke* Court “reject[ed] a requirement for a ‘nexus’ between the injury claimed and the right being asserted.”¹⁹

remedy.” Applicant’s Response to Board Order Regarding Standing (Aug. 15, 2008) at 3 [hereinafter Applicant 8/15/08 Response]. We see no evidence of any oversight and note that it should be beyond question that, while “contemporaneous judicial concepts of standing” are indeed relied upon in NRC adjudications, it is not appropriate merely to incorporate any and all judicial standing concepts into an NRC proceeding when such concepts concern matters of federal court practice that have no comparable counterpart in NRC adjudicatory practice. We discuss *infra* some comparisons between NRC proceedings and federal court proceedings.

¹⁵ *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996).

¹⁶ Applicant 8/15/08 Response at 2.

¹⁷ Applicant 8/29/08 Reply at 2.

¹⁸ 438 U.S. 59 (1978).

¹⁹ *Yankee*, CLI-96-1, 43 NRC at 6 (citing *Duke*, 438 U.S. at 78-81). We note that the Commission also made the following statement, in a footnote:

Section 2.714(g) of 10 C.F.R. provides that an intervenor’s participation may be limited in accordance with its interests. We construe this provision in accordance with the cited case law, i.e., that an intervenor’s contentions may be limited to those that will afford it relief from the injuries asserted as a basis for standing.

Id. at 6 n.3. But the provision of 10 C.F.R. § 2.714(g), found in NRC’s pre-2004 rules, does not appear in the current rules. And even reading the Commission’s statement in footnote 3 of *Yankee* as still being good law, notwithstanding the current inapplicability of the provision that was its basis, the only limitation that it would warrant would be one where a proffered contention would *not*, if successfully litigated, afford it any “relief from the injuries asserted as a basis for standing.” Of course, if a merits ruling in favor of Intervenor on Contention E led to denial of the applied-for license amendment herein, this would in fact afford them relief from their asserted injuries, as they in fact argue. *See* Petitioners’ Corrected Reference Petition (Jan. 9, 2008) at 8 [hereinafter Reference Petition].

We note one additional statement of the Commission in *Yankee*, applying its holding to the petitioners in that case:

Assuming *arguendo* that the Licensing Board determines that Petitioners do indeed have standing to intervene in this proceeding, they will then be free to assert any contention, which,

(Continued)

Applicant also argues that any alleged injuries in this proceeding “will not be redressed (i.e., afforded relief) by a favorable decision with respect to Contention E [because, e]ven if the license amendment application for the North Trend Expansion is denied, Crow Butte will still continue its operations at its remaining mine units.”²⁰ But this reasoning also fails. The same argument might be made regarding any contention. If Intervenors were to establish in a hearing that, based on *any* of its contentions, Crow Butte should not be granted the sought license amendment, this is the extent of the relief possible in this proceeding. In sum, the Applicant’s arguments based on the Commission’s decision in *Yankee* are without merit.

Finally, although there is indeed, as Applicant argues, Supreme Court and other federal court authority to the effect that “a plaintiff [in federal court] must demonstrate standing separately for each form of relief sought,”²¹ and for each separate “claim,”²² these do not translate into a requirement that a petitioner must show standing for each contention submitted in an NRC proceeding.

Regarding the need in federal court to show standing for each “form of relief sought,” a contention is not, of course, a “form of relief.” Rather, it is an allegation *contended* by a petitioner as *grounds* for the petitioner’s challenge to the grant of a license, license amendment, license renewal, etc. Generally, the

if proved, will afford them the relief they seek, i.e., the rejection or *modification* of the Yankee NPS decommissioning plan *in a manner that will redress their asserted injuries*.

Yankee, CLI-96-1, 43 NRC at 6 (emphasis added). We do not find that this would lead to any different result herein. First, this statement appears to be based on the interpretation of former section 2.714(g) found in footnote 3. But even if it is not so limited, this would not automatically mandate a different result herein. Assuming, for example, that an argument were made that the italicized language following the “*i.e.*” should prevent Intervenors from arguing for a license condition that concerned only financial or corporate arrangements and did nothing to address the alleged water contamination injuries that are the basis for their standing, we would not necessarily find merit in such an argument. This is because, in contrast to the *new activity* being proposed for approval in this proceeding, *Yankee* involved a proposed decommissioning plan — or plan seeking to *end* a licensed activity — and contentions seeking modification of the plan or an alternative plan. *Id.* Such contentions were, in *Yankee*, the *only* realistic relief possible, as the question in a decommissioning or license termination case is not whether or not to approve a *new* proposed activity, but how a licensee should go about *ending* the *already-licensed activity*. In comparison, any license condition that might be ordered in a case such as this one, involving a proposed *new* activity, would be more akin to a “lesser included penalty” of outright denial of a license. In any event, as applied to this proceeding the Commission’s holding in *Yankee*, read fairly, clearly is that standing need not be shown for each separate contention.

²⁰ Applicant 8/29/08 Reply at 2.

²¹ See *id.* (citing *Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc.*, 528 U.S. 167, 185 (2000)).

²² See Applicant 8/15/08 Response at 4 (citing *Davis v. Federal Election Commission*, 128 S. Ct. 2759, 2769 (2008); *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 352 (2006); *Lewis v. Casey*, 518 U.S. 343, 357 (1996); *Rosen v. Tennessee Commissioner of Finance and Administration*, 288 F.3d 918 (6th Cir. 2002)).

only relief sought by petitioners challenging issuance of an applicant's applied-for license, license amendment, license renewal, or other approval is denial of the application in question — such denial is argued to be necessary to provide relief from petitioners' asserted injuries.

Just so, in this proceeding Intervenor's oppose issuance of the license amendment for which Applicant Crow Butte has applied, asserting injuries related to contamination of water and air and arguing that "denial of the amendment would protect [their] health, wellbeing and property values."²³ A finding in their favor on the merits of *any* admitted contention may lead to the "relief sought" by them — i.e., denial of the requested license amendment. Contention E is no different in this regard. It is but one of the grounds put forth by Intervenor's in support of their argument that the license amendment sought by Crow Butte with regard to its "North Trend Expansion Site" should be denied. Thus, federal case law requiring a separate showing of standing for each "form of relief sought" in an Article III court would not bar Intervenor's from raising Contention E.

Nor do the cases cited by Applicant for the need to show standing for each separate "claim" warrant a different result. Close consideration of the cases in question reveals that the term "claim," as used in them, refers to a challenge (to a particular action, rule, or law) that is actually *tied to* a request for *relief specific to that challenge*. This is in contrast to a "contention" in NRC practice, which, again, is merely one allegation or ground, generally among several, put forward to support a challenge to one action (typically, as indicated above, NRC approval and issuance of an applied-for license, license amendment, or similar approval or action) that is the subject of any relief requested.²⁴

The 2002 *Rosen* case cited by Applicant was a class action case in which several current and former enrollees in "TennCare," Tennessee's alternative to Medicaid under a federal waiver of various federal Medicaid eligibility rules, had, on behalf of a class of present and future TennCare applicants and beneficiaries,

²³ Reference Petition at 8.

²⁴ We observe that both words — "claim" and "contention" — are the sort of terms that may be used in a number of ways, and that this is the source of some of the confusion surrounding their use in relation to each other. For example, each word may be used both as a legally significant term and more generically. To illustrate, it would not be unusual in a federal court decision for a court to state, "It is Plaintiff's contention with regard to this claim that" And it would not be unusual for an NRC licensing board to state, "In support of this contention Petitioner makes several claims." In the first statement the word "contention" is used in a more generic way and the word "claim" has a more legally significant meaning, whereas in the second statement the word "contention" has a legally significant meaning and the word "claim" is used in generic sense. As legally significant terms the two words are obviously not automatically equivalent to each other, merely because they may, depending upon context and manner of use, have the same meaning when used in a more generic sense. Language is not such a mechanical matter, and precision in language and its meaning demands close attention to such things as context and manner of use.

challenged some of the State's actions and procedures in making TennCare eligibility determinations.²⁵ One "claim" at issue involved a motion to enforce one of several agreed orders that had been entered in the case, on various grounds.²⁶ Another claim concerned a challenge to a new state rule, adopted after commencement of the lawsuit, which had the effect of closing TennCare to uninsurable persons not otherwise eligible for benefits, who had not enrolled or submitted applications prior to October 1, 2001.²⁷ The Court of Appeals, citing the principle that "standing is a claim-by-claim issue,"²⁸ held that the named plaintiffs, who had enrolled prior to October 1, 2001, did not have standing to challenge implementation of the "October 1 rule."²⁹

In *Davis v. Federal Election Commission*, a case decided by the Supreme Court in 2008, a self-financed candidate for Congress who had spent sums in excess of \$1 million in prior campaigns successfully challenged the constitutionality of section 319 of the Bipartisan Campaign Reform Act of 2002.³⁰ In reaching its determination that Davis faced injury from the operation of, and had standing to challenge, both the disclosure requirements of section 319(b)³¹ and the "scheme of contribution limitations that applies when section 319(a) comes into play,"³² the Supreme Court noted in dicta that the fact that he had standing for one did "not necessarily mean that he also ha[d] standing to challenge" the other.³³ In making this observation the Court quoted the principle, from its 1996 decision in *Lewis v. Casey*, that "standing is not dispensed in gross,"³⁴ as well as its statement in the 2006 *DaimlerChrysler v. Cuno* case that, "[r]ather, 'a plaintiff

²⁵ *Rosen*, 288 F.3d at 921.

²⁶ *Id.* at 922.

²⁷ *Id.*

²⁸ *Id.* at 928.

²⁹ *Id.* at 929; *see also id.* at 927-31.

³⁰ *Davis*, 128 S. Ct. at 2766-68.

³¹ *Id.* at 2768.

³² *Id.* at 2769. Section 319(a) had been called the "Millionaire's Amendment" and provided that, when a self-financed candidate spent over \$350,000 of personal funds, the candidate's "non-self-financing" opponent would be permitted to receive contributions that would otherwise exceed certain limitations on campaign contributions. *See id.* at 2766. The Court found that Davis had standing to challenge section 319(a) because, even though his opponent had "adhered to the normal contribution limits," *id.* at 2767, and chosen not to take advantage of the "asymmetrical limits" that exceeded the normal limitations, *id.* at 2769, Davis had indicated his intent to spend more than \$350,000 and "there was no indication that his opponent would forgo [the] opportunity" to "receive contributions on more favorable terms." *Id.*; *cf. Rosen*, 288 F.3d at 929-31.

³³ *Davis*, 128 S. Ct. at 2768-69.

³⁴ *Id.* at 2769 (quoting *Lewis*, 518 U.S. at 358 n.6).

must demonstrate standing for each claim he seeks to press’ and ‘for each form of relief’ that is sought.’³⁵

It is apparent that both *Davis* and *Rosen* involved multiple “claims” challenging separate actions or regulatory or statutory provisions, and concerning corresponding requests for separate and different forms of relief — i.e., the overturning of separate actions and statutory or regulatory provisions. In neither case was any argument, or ruling, made that a plaintiff had to show standing for each allegation argued to constitute a ground to overturn one particular action or provision.

The *Lewis* case cited by the Court in *Davis* was a class action brought by inmates of Arizona’s prison system, alleging deprivation of their rights of access to the courts and counsel; the case involved issues of proportionality between the extent of injuries proven and remedies ordered. The only actual injury found by the District Court concerned the “failure of the prison to provide the special services that [one inmate] would have needed, in light of his illiteracy, to avoid dismissal of his case.”³⁶ The Supreme Court found that the District Court’s injunctive order mandating “sweeping changes” — including specifying “in minute detail” library hours, educational requirements for law librarians, the content of a legal-research course for inmates, “direct assistance” to illiterate and non-English-speaking inmates³⁷ — was unwarranted.³⁸ Stating that the requirement to show actual injury “derives ultimately from the doctrine of standing, a constitutional principle that prevents courts of law from undertaking tasks assigned to the political branches,”³⁹ the Court also observed that “[t]he actual-injury requirement would hardly serve th[is] purpose . . . if once a plaintiff demonstrated harm from one particular inadequacy in government administration, the court were authorized to remedy *all* inadequacies in that administration.”⁴⁰ Further, as Intervenor’s point out,⁴¹ the Court noted, “[i]f the right to complain of *one* administrative deficiency automatically conferred the right to complain of *all*

³⁵ *Davis*, 128 S. Ct. at 2769 (quoting *DaimlerChrysler*, 547 U.S. at 352; *Friends of Earth*, 528 U.S. at 185).

³⁶ *Lewis*, 518 U.S. at 358.

³⁷ *Id.* at 347.

³⁸ *Id.* at 358-64.

³⁹ *Id.* at 349. Interestingly, the Court in addition observed in a footnote that “[o]ur holding regarding the inappropriateness of systemwide relief for illiterate inmates does not rest upon the application of standing rules, but rather . . . upon ‘the respondents’ failure to prove that denials of access to illiterate prisoners pervaded the State’s prison system.’” *Id.* at 360 n.7.

⁴⁰ *Id.* at 357.

⁴¹ Petitioners’ Response to Applicant’s Submission Re: Standing (Aug. 22, 2008) at 5 [hereinafter Petitioners 8/22/08 Response].

administrative deficiencies, any citizen aggrieved in one respect could bring the whole structure of state administration before the courts for review.”⁴²

The situation in *Lewis* is obviously a far cry from that in the instant proceeding. Apart from the fact that *Lewis* involved the merits findings of the District Court, this proceeding concerns only Intervenors’ challenge to issuance of the applied-for license, and there is no chance that any appeal arising out of this proceeding could “bring the whole structure of [NRC] administration before the courts for review.” Even looking solely at the nature of the numerous remedies at issue in *Lewis* as compared to the singular relief of denial of the license amendment sought herein, the instant proceeding is obviously distinguishable from the *Lewis* case.

Finally, regarding standing for separate “claims,” in the *DaimlerChrysler* case,⁴³ Toledo, Ohio, taxpayers had challenged certain municipal and state tax benefits offered to DaimlerChrysler to encourage it to expand its Jeep operation in Toledo, alleging on various grounds that these benefits violated the Commerce Clause of the Constitution.⁴⁴ The District Court found standing on the part of plaintiffs, “[a]t a bare minimum” as municipal taxpayers⁴⁵ under case law in which “the peculiar relation of the corporate taxpayer to the corporation” was noted “to distinguish such a case from the general bar on taxpayer suits,”⁴⁶ but found no Commerce Clause violation.⁴⁷ The Court of Appeals for the Sixth Circuit

⁴² *Lewis*, 518 U.S. at 358 n.6.

⁴³ *DaimlerChrysler v. Cuno*, 547 U.S. 352. We note that Applicant has cited additional case law in support of its argument, including *Los Angeles v. Lyons*, 461 U.S. 95, 103, 106 (1983); and *Friends of the Earth, Bluewater Network Division v. U.S. Department of Interior*, 478 F. Supp. 2d 11, 16 (D.D.C. 2007). See Applicant’s Brief Regarding Foreign Ownership Issues (May 23, 2008) at 12-13 [hereinafter Applicant 5/23/08 Brief]. In the *Lyons* case, the issue was whether standing for injunctive relief had been shown, 461 U.S. at 97, and the Court held that, even if injury sufficient to show an existing case or controversy is established, this does not confer standing with regard to injunctive relief. See *id.* at 102-06. We address *supra* the distinction between “forms of relief” and contentions. The *Bluewater* case involved a rulemaking petition regarding the use of off-road vehicles in national parks. 478 F. Supp. 2d at 12. The Court held that, while standing to challenge uniform, systemwide regulations required only that an association identify a single member with standing as to those counts and at least one “park unit,” in order to show standing to challenge “site-specific regulations at 18 individual part units” an association had to “identify a member affected by each site-specific action.” *Id.* at 16 (emphasis added). Again, this does not describe anything comparable to contentions, but rather concerns separate “actions,” as in the *Rosen* case. We find that neither these nor any other cases cited by Applicant are authority for an argument that standing must be shown for each separate contention in an NRC proceeding.

⁴⁴ *DaimlerChrysler*, 547 U.S. at 337-38.

⁴⁵ *Id.* at 339-40.

⁴⁶ *Id.* at 349 (quoting *Frothingham v. Mellon*, decided with *Massachusetts v. Mellon*, 262 U.S. 447, 486-87 (1923)); see also *id.* at 340.

⁴⁷ *Id.*

held that the state tax franchise credit at issue violated the Commerce Clause and did not address standing.⁴⁸ The Supreme Court, stating that “our standing cases confirm that a plaintiff must demonstrate standing for each claim he seeks to press,”⁴⁹ found the taxpayers’ argument, that their status as municipal taxpayers gave them standing to challenge the state franchise tax credit,⁵⁰ to be without merit.⁵¹

The state tax claim in *DaimlerChrysler* was clearly connected to requested relief specific to that claim, thus distinguishing that case from the instant proceeding. Also, significantly for purposes of this proceeding, the *DaimlerChrysler* Court in reaching its holding in addition pointed out, in a footnote, that certain case law cited by the taxpayers in support of standing actually held “only” that, “once a litigant has standing to request invalidation of a particular agency action, it may do so by identifying all grounds on which the agency may have ‘failed to comply with its statutory mandate.’”⁵² Although the *DaimlerChrysler* court found this principle inapplicable to the plaintiffs, it is clearly analogous to the situation before us; i.e., “once a [petitioner] has standing to [challenge] a particular agency action, it may do so by identifying *all grounds* on which [a proposed agency action is challenged].”

In sum, a showing of standing need be made only once with regard to any one agency “action” or approval at issue. Intervenors clearly need not make separate showings of standing for each separate contention, which are not comparable either to “forms of relief” or Article III “claims,” but are distinctly comparable to various “grounds” that may be asserted in opposition to a proposed agency action at issue.⁵³ As the Commission stated in adopting changes to 10 C.F.R.

⁴⁸ *Id.*

⁴⁹ *Id.* at 352.

⁵⁰ *Id.* at 349.

⁵¹ *Id.* at 354.

⁵² *Id.* at 353 n.5 (citing *Sierra Club v. Adams*, 578 F.2d 389, 392 (C.A.D.C. 1978); *Sierra Club v. Morton*, 405 U.S. 727, 737 (1972); *Iowa Independent Bankers v. Board of Governors of Federal Reserve*, 511 F.2d 1288, 1293-94 (C.A.D.C. 1975)). The Court stated that the taxpayers had misconstrued the case law in question in asserting that it supported their standing as state taxpayers based on it being “ancillary” to their standing as municipal taxpayers, and found that the case law in question did “not establish that the litigant can, by virtue of his standing to challenge one government action, challenge other governmental actions that did not injure him.” *Id.* at 353 & n.5; *see also id.* at 351-53.

⁵³ In any event, establishing standing for Contention E would involve the same showing required for the other contentions: a showing of “a concrete and particularized injury” (in this proceeding, increased risk of water contamination) that is “fairly traceable to the challenged action” (i.e., NRC approval of a license amendment that would allow the proposed mining at the new expansion site), “likely to be redressed by a favorable decision” (i.e., denial of the applied-for license amendment). *See Crow Butte*, LBP-08-6, 67 NRC at 271; *see also id.* at 276-89.

(Continued)

Part 2 in 2004, we are to look to judicial concepts of standing “where appropriate to determine those interests affected within the meaning of Section 189a of the [Atomic Energy Act].”⁵⁴ Where situations addressed in Federal Court case law on Article III standing are not comparable to that in an NRC proceeding, it is clearly not appropriate to apply them in the NRC proceeding. We find Applicant’s arguments regarding Intervenors’ standing to raise and litigate Contention E to be without merit, and accordingly move on to consider the admissibility of the contention under the contention admissibility provisions of 10 C.F.R. § 2.309(f)(1).

B. Ruling on Admissibility of Contention E

As noted above, at this point Contention E deals more with the significance than the disclosure of the foreign ownership of the Applicant, given Applicant’s acknowledgment of its ownership by Cameco.⁵⁵ We begin our analysis, however, with the contention as originally stated and supported by Intervenors in their Petition, and address in the course of our analysis questions of significance, consequences, and impacts.

We would further observe that requiring a separate showing of standing for each ground or contention would, apart from not being required under relevant law, thus be duplicative, as well as add significantly to delays and inefficiencies in NRC adjudicatory proceedings, a concern that has been a central one for the Commission over the years. *See, e.g.*, Changes to Adjudicatory Process, 69 Fed. Reg. 2182 (Jan. 14, 2004), in which the first words of the Commission’s Statement of Considerations for the new 10 C.F.R. Part 2 rules were: “The Nuclear Regulatory Commission (NRC) is amending its regulations concerning its rules of practice to make the NRC’s hearing process more effective and efficient.”

⁵⁴ 69 Fed. Reg. at 2200. Section 189a of the Atomic Energy Act concerns NRC adjudicatory hearings and includes the requirement that “the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.” 42 U.S.C. § 2239a(1)(A). The context for the Commission’s quoted language in the text is the following:

While Article III of the Constitution does not constrain the NRC hearing process, our hearings therefore, are not governed by judicially-created standing doctrine, *see Envirocare of Utah, Inc. v. NRC*, 194 F.3d 72 (D.C. Cir. 1999), the Commission nonetheless has generally looked to judicial concepts of standing where appropriate to determine those interests affected within the meaning of Section 189.a. of the AEA. *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-04, 49 NRC 185, 188 (1999), citing *Portland Gen. Elec. Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-14 (1976). The Commission contemplates no change in this practice.

69 Fed. Reg. at 2200.

⁵⁵ *See supra* text accompanying note 6; *infra* text accompanying note 78.

1. Summary of Contention and Basis

In Contention E Intervenor's allege:

CBR Fails to Mention It is Foreign Owned by Cameco, Inc. So All The Environmental Detriment and Adverse Health Impacts Are For Foreign Profit and There Is No Assurance The CBR Mined Uranium Will Stay In US for Power Generation.⁵⁶

Intervenor's in support of this contention assert, as we recounted in LBP-08-6,⁵⁷ that Applicant seeks to expand its operations on the basis that the uranium it produces is needed to fulfill U.S. demand, but that the Applicant's "Canadian owners may divert the Uranium products to non-US customers such as China, India, Pakistan, North Korea or possibly Iran."⁵⁸ Intervenor's claim that Cameco has owned Crow Butte Resources since 2000,⁵⁹ and also "runs operations in Canada and Kazakhstan and . . . sells Uranium products to other non-US buyers."⁶⁰ Intervenor's contend that Applicant's foreign ownership is "key" to the determination whether the Applicant's current and proposed operations are within "the best interests of the US general public," and that this issue is thus material to the findings that must be made regarding the Application at issue.⁶¹ Alleging that Applicant deliberately omitted references to foreign ownership in its application "in order to give the mis-impression that CBR's Uranium mining operations are somehow profitable to US interests," Intervenor's suggest that, as a Canadian-owned company, Crow Butte's operations are "clearly for the profit of foreign interests."⁶²

Among several sections of the Application from which Intervenor's provide quotations in support of Contention E are sections 1.1.1, 1.2, and 2.1.2 of the Environmental Report (ER). From the first of these, the following quotation is provided:

⁵⁶Reference Petition at 2, 24. We note that the Reference Petition is a consolidation of the original, largely identical Petitions filed by the various Petitioners, including the current Intervenor's. See Request for Hearing and/or Petition to Intervene for Owe Aku, Bring Back the Way (Nov. 12, 2007); Request for Hearing and/or Petition to Intervene for Western Nebraska Resources Council (Nov. 12, 2007); Request for Hearing and/or Petition to Intervene for Debra L. White Plume (Nov. 12, 2007). (This list does not include the requests of additional petitioners whom we found did not have standing in this proceeding.)

⁵⁷*Crow Butte*, LBP-08-6, 67 NRC at 334-39.

⁵⁸Reference Petition at 24-25.

⁵⁹*Id.* at 25.

⁶⁰*Id.*

⁶¹*Id.*

⁶²*Id.* at 24-25.

ER 1.1.1 Crow Butte Uranium Project Background

The original development of what is now the Crow Butte Uranium Project was performed by Wyoming Fuel Corporation, which constructed a research and development (R&D) facility in 1986. The project was subsequently acquired and operated by Ferret Exploration Company of Nebraska until May 1994, when the name was changed to Crow Butte Resources, Inc. (CBR). This change was only a name change and not an ownership change. CBR is the owner and operator of the Crow Butte Project.⁶³

The Intervenors also provide the following quotation, which consists of language found in both ER §§ 1.2 and 2.1.2:

The Crow Butte Project (including the North Trend Area) represents an important source of new domestic uranium supplies that are essential to provide a continuing source of fuel to power generation facilities.⁶⁴

Finally, Intervenors state in support of Contention E that the Applicant provides no information in its Application regarding the “chain of possession of this nuclear source material or who the buyers are and where it may end up or how it may be ultimately used.”⁶⁵

2. Satisfaction of 10 C.F.R. § 2.309(f)(1)(i), (ii), (v)

We are required to assess the admissibility of Contention E under the requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi). We find at the outset that the contention, supported in the Petition as summarized above, meets the first two requirements in question, that Intervenors provide (i) a “specific statement of the issue of law or fact to be raised or controverted”; and (ii) a “brief explanation of the basis for the contention.”⁶⁶ The contention obviously involves combined issues of law and fact, relating to whether or not Crow Butte Resources is in fact foreign-owned; if so, whether this was in fact — and should legally have been — disclosed; and what the factual impact and legal significance of such alleged foreign ownership and failure to disclose are and would be, should the Application be granted. The contention is specifically stated, and Intervenors provide the requisite “brief explanation” of its basis.

We also find that the contention and support provided for it meet the requirement of 10 C.F.R. § 2.309(f)(1)(v), that petitioners “[p]rovide a concise statement

⁶³ *Id.* at 25.

⁶⁴ *Id.* at 26.

⁶⁵ *Id.*

⁶⁶ 10 C.F.R. § 2.309(f)(1)(i), (ii).

of the alleged facts or expert opinions which support the [petitioners'] position on the issue and on which the [petitioners intend] to rely at the hearing, together with references to the specific sources and documents on which the [petitioners intend] to rely to support [their] position on the issue.”⁶⁷ Although Intervenors provide no expert opinions in support of the contention, this is not required,⁶⁸ and Intervenors clearly provide a concise statement of alleged facts that support the contention. As to sources and documents, Intervenors rely on various parts of the Application itself, thus also satisfying part of the requirements of 10 C.F.R. § 2.309(f)(1)(vi), insofar as it mandates “references to specific portions of the application (including the environmental report and safety report).”

3. Satisfaction of 10 C.F.R. § 2.309(f)(1)(iii), (iv), (vi)

With regard to the requirements of 10 C.F.R. § 2.309(f)(1)(iii), (iv), and (vi), that petitioners must “[d]emonstrate that the issue raised in the contention is within the scope of the proceeding” and “material to the findings the NRC must make to support the action” at issue, and that they must “provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact,” we note that the NRC Staff’s and the Applicant’s initial objections to the contention primarily concerned questions of scope and materiality.⁶⁹ In this regard, in LBP-08-6 we refrained from ruling on Contention E, to allow the parties to brief certain related issues further.⁷⁰ We observed that the questions before us included “whether foreign ownership of the Applicant would, under [10 C.F.R.] Part 40, including section 40.32(d), have an impact on

⁶⁷ *Id.* § 2.309(f)(1)(v) (emphasis added).

⁶⁸ *See, e.g.*, Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989), in which the Commission explained that the requirement in section 2.309(f)(1)(v) “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.” *Id.* (emphasis added).

⁶⁹ *See* NRC Staff Combined Response in Opposition to Petitioners’ Requests for Discretionary Intervention and Petitions for Hearing and/or to Intervene of Debra White Plume, Thomas Cook, Owe Aku/Bring Back the Way, Chadron Native American Center, High Plains Development Corporation, Slim Buttes Agricultural Development Corporation, and Western Nebraska Resources Council (Dec. 7, 2007) at 43 [hereinafter Staff 12/7/07 Response]; Tr. at 353; *Crow Butte*, LBP-08-6, 67 NRC at 335-36.

⁷⁰ *Crow Butte*, LBP-08-6, 67 NRC at 339.

or endanger the common defense or security of the United States, so as to bring into question the propriety of granting the sought license amendment.”⁷¹

Section 40.32 concerns the requirements for issuance of a license relating to source material such as that at issue herein. Under 10 C.F.R. § 40.45, in a license amendment (or renewal) proceeding the “applicable criteria set forth in § 40.32” are to be applied in considering an application. According to Staff, section 40.32(d) is among those it considers to be “applicable” in reviewing a license amendment application.⁷²

Section 40.32(d) includes as a requirement that “issuance of the license will not be inimical to the common defense and security or to the health and safety of the public.” This is relevant, first, because Intervenors in support of Contention E have urged from the start that Applicant’s foreign ownership is “key” to the determination whether the Applicant’s current and proposed operations are within

⁷¹ *Id.* We also noted that there was a question whether issuance of the requested license amendment would violate 10 C.F.R. § 40.38. *Id.* The NRC Staff has correctly pointed out that it would not, given that section 40.38 was “promulgated to implement the USEC Privatization Act . . . which amended the Atomic Energy Act of 1954 . . . and applies exclusively to uranium enrichment facilities.” NRC Staff’s Response to Board’s Order of April 29, 2008 (May 23, 2008) [hereinafter Staff 5/23/08 Response] at 2; *see also* Applicant 5/23/08 Brief at 3-5.

⁷² Staff 5/23/08 Response at 6; *but see also* Tr. at 479-80. Regarding Applicant’s questions about the Board’s role with respect to legal issues and “uncover[ing] arguments and support never advanced by the petitioners themselves,” Applicant 5/23/08 Brief at 5, we note that Intervenors did not themselves cite 10 C.F.R. § 40.32(d) in support of Contention E in their original petition. As noted *infra*, however, they do in their petition argue in support of the contention that “understanding the foreign ownership of [Crow Butte Resources] is key” to the determination Intervenors contend the NRC must make, regarding whether Crow Butte’s current and proposed operations are “in the best interests of the US general public.” Reference Petition at 25. Thus the Board was led to consider relevant law and rules relating to foreign ownership, particularly under 10 C.F.R. Part 40, as well as to whether at least the proposed expansion site would be in the “best interests of the public” as in effect defined in section 40.32, including subsection (d) thereof.

In this regard, we note that the NRC rule on contention admissibility nowhere requires petitioners to cite any specific law or regulation in support of a contention. (Thus the Staff’s argument that Intervenors cite no law or regulation requiring consideration of the “chain of possession” of uranium mined by Crow Butte, Staff 12/7/07 Response at 44, is also without merit.) Licensing boards, however, in deliberating on the admissibility of submitted contentions often research the law relevant to those contentions and issues raised in them, and it is not at all out of the ordinary for judges in their orders to discuss the law and regulations that may be relevant to issues raised in contentions, whether in ultimately admitting or denying them, or, as we did with regard to Contention E, in permitting the parties to brief such potentially relevant legal issues further before making a final ruling, so that all parties have full opportunity to make any and all legal arguments that might be pertinent to the Board’s final determination on admissibility of the contention. Researching and considering the law that may be related to issues raised by parties is a fundamental part of the role of judges, and indeed judges would be remiss in their duties if they did not do this with respect to issues that may obviously have a legal aspect to them.

“the best interests of the US general public,” and that this issue is thus material to the findings that must be made regarding the Application at issue.⁷³

Second, as we noted in LBP-08-6, the phrase “common defense and security” has been interpreted in NRC case law as referring to “the absence of foreign control over the applicant.”⁷⁴ Although this interpretation addressed the phrase as used at 10 C.F.R. § 50.12(a), the use of the exact same phrase, “common defense and security,” in section 40.32(d), with no proviso as to a different meaning, leads to a conclusion that the same meaning would apply — or at the very least that

⁷³ See Reference Petition at 25. Intervenor has also cited section 69 of the Atomic Energy Act, which provides that “[t]he Commission shall not license any person to transfer or deliver, receive possession of or title to, or import into or export from the United States any source material if, in the opinion of the Commission, the issuance of a license to such person for such purpose would be inimical to the common defense and security or the health and safety of the public.” 42 U.S.C. § 2099. Intervenor asserts that this is the statutory source for section 40.32(d) and argue that it is dispositive authority on this issue. Petitioners’ Brief Concerning Contention E and Subpart G (May 23, 2008) at 12 [hereinafter Petitioners 5/23/08 Brief] (citing 42 U.S.C. § 2099). As recently noted by another licensing board, it is, of course, quite “proper for a reply to respond to the legal, logical, and factual arguments presented in answers, so long as new issues are not raised.” *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), LBP-08-26, 68 NRC 905, 919 (2008).

⁷⁴ *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-84-45, 20 NRC 1343, 1400 (1984), *aff’d in part, rev’d in part, and remanded*, ALAB-800, 21 NRC 386 (1985). We also noted, regarding the phrase, “common defense and security” as used in several parts of the Atomic Energy Act, that the D.C. Circuit Court of Appeals had suggested that there was “internal evidence [in] the Act” that

Congress was thinking of such things as not allowing the new industrial needs for nuclear materials to preempt the requirements of the military; of keeping such materials in private hands secure against loss or diversion; and of denying such materials and classified information to persons whose loyalties were not to the United States.

Siegel v. AEC, 400 F.2d 778, 784 (D.C. Cir. 1968) (emphasis added).

Applicant has cited another D.C. Circuit case, *Natural Resources Defense Council, Inc. v. NRC*, 647 F.2d 1345 (D.C. Cir. 1981), for the proposition that “in the absence of unusual circumstances, the Commission need not look beyond the non-proliferation safeguards in determining whether the common defense and security standard is met.” Applicant 5/23/08 Brief at 8-9 (citing *NRDC v. NRC*, 647 F.2d at 1363). But *NRDC* involved the issue of “whether and to what extent ‘effective control’ of nuclear exports requires the [NRC] to consider projected health and safety impacts associated with an exported reactor in the recipient foreign country,” 647 F.2d at 1346, not whether foreign ownership itself may be relevant to “common defense and security” considerations in cases not involving exports *per se*; exports themselves, as in *NRDC*, of course necessarily *already* concern transport to a foreign country or countries. See, e.g., *id.* at 1363, where the Court agreed with a congressional committee report statement that “[i]n the absence of unusual circumstances the committee believes that any proposed export meeting the (nonproliferation safeguards) criteria set forth in subsection 127a. and, [sic] subsection 128a. [of the AEA], would also satisfy the common defense and security standard.” We therefore do not find that this ruling of the Court is inconsistent with the Court’s ruling in *Seigel* or that of the licensing board in *Shoreham* to the extent that foreign ownership would be irrelevant in this proceeding.

such an interpretation is arguable, particularly from the standpoint of contention admissibility.

The preceding considerations suggest that the issue of foreign ownership is not, contrary to Staff and Applicant arguments,⁷⁵ immaterial in this proceeding, and that Contention E is within the scope of this proceeding.

We recognize at this point that, although Applicant initially denied the bulk of Intervenor's allegations regarding foreign ownership of Crow Butte,⁷⁶ and admits that it did not disclose the actual ownership of Crow Butte anywhere in the Application,⁷⁷ it subsequently acknowledged that Cameco is in fact a Canadian-owned company that is the ultimate owner of Applicant Crow Butte Resources.⁷⁸ Appli-

⁷⁵ See, e.g., Staff 12/7/07 Response at 43-44; Staff 5/23/08 Response at 3; Tr. at 353; Applicant 5/23/08 Brief at 1, 8-9; Applicant's Consolidated Response Regarding Foreign Ownership and Hearing Procedures (June 9, 2008) at 2 [hereinafter Applicant 6/9/08 Response]; Applicant's Response to NRC Staff's Response to Board's Order of August 5, 2008 (Aug. 29, 2008) at 2, 17 [hereinafter Applicant 8/29/08 Response].

⁷⁶ See Response of Applicant, Crow Butte Resources to Petitions to Intervene filed by Ms. Debra L. White Plume, Chadron Native American Center, Inc., High Plains Community Development Corporation, Thomas Kanatakeniate Cook, Slim Buttes Agricultural Development Corporation, Western Nebraska Resources Council (Dec. 6, 2007) at 5 [hereinafter Applicant 12/6/07 Response].

⁷⁷ See Tr. at 477-78.

⁷⁸ Applicant 5/23/08 Brief at 2. According to Applicant:

The land (fee and leases) at the Crow Butte facility is owned by Crow Butte Land Company, which is a Nebraska corporation. All of the officers and directors of Crow Butte Land Company are U.S. Citizens. Crow Butte Land Company is owned by Crow Butte Resources, Inc., which is the licensed operator of the facility. Crow Butte Resources, which does business as Cameco Resources, is also a Nebraska corporation. All of its officers are U.S. citizens, as are 2/3 of its directors. Crow Butte Resources is owned by Cameco US Holdings, Inc., which is a U.S. corporation registered in Nevada. Again, all of the officers of Cameco US Holdings are U.S. citizens, as are 2/3 of the directors. Cameco US Holdings is held by Cameco Corp., which is a Canadian corporation. Cameco Corp. is publicly traded on both the Toronto and New York Stock Exchanges. According to the most recent information available on institutional and retail ownership, total U.S. shareholdings in Cameco are 52%. Canadian ownership accounts for 39% of outstanding shares.

....

Cameco is the leading U.S. producer of uranium. See Energy Information Administration, U.S. Department of Energy, <http://www.eia.doe.gov> (2008). Crow Butte and Smith Ranch-Highland, which both provide uranium to Cameco, have accounted for the vast majority of all U.S.-produced uranium for nearly a decade. *Id.* Cameco is also the largest supplier of uranium to U.S. utilities. More than half of Cameco's global sales in 2007 were to U.S. customers, which include, among many others, the Omaha Public Power District in Nebraska and the U.S. Government (Tennessee Valley Authority). Ultimately, Cameco supplied approximately 32% of all U.S. uranium requirements in 2007. This uranium accounts for more than 5% of all electricity generated in the United States.

(Continued)

cant also states that the chain of ownership of uranium mined at the Crow Butte existing and proposed sites would be subject to the Nuclear Non-Proliferation Treaty, of which Canada is a signatory,⁷⁹ and Canada's safeguards agreement and protocol providing the International Atomic Energy Agency (IAEA) with "the right and obligation to monitor Canada's nuclear related activities and verify nuclear material inventories and flows into Canada."⁸⁰ We note as well that both Staff and Applicant point out that in 1998 Crow Butte reported to the NRC the imminent purchase of shares by Cameco, which the NRC approved.⁸¹

With regard to disclosure of the preceding facts in the Application itself, Staff and Applicant assert that 10 C.F.R. Part 40 does not require a statement of ownership in an application.⁸² But, as Intervenors point out, 10 C.F.R. § 40.9(a) requires that "[i]nformation provided to the Commission by an applicant for a license or by a licensee" be "complete and accurate in all material respects."⁸³ Intervenors also cite section 182 of the Atomic Energy Act⁸⁴ for a requirement that

Id. at 2-3. We note Intervenors' challenge of Cameco's statement regarding "total U.S. shareholdings in Cameco [being] 52%," Petitioners' Reply to Applicant's Brief Regarding Foreign Ownership and Subpart G (June 9, 2008) at 3 [hereinafter Petitioners 6/9/08 Reply], which would be among the factual issues for determination in any hearing granted on Contention E.

⁷⁹ Tr. at 354.

⁸⁰ Citations to International Agreements (Jan. 30, 2008) at 2. Of course, these are all merits issues, to be determined ultimately in any hearing on Contention E.

⁸¹ See NRC Staff Response to Petitioners' Brief on Foreign Ownership and Subpart G (June 9, 2008) at 7 [hereinafter Staff 6/9/08 Response]; Applicant 6/9/08 Response at 8-9 ("On May 13, 1998, Crow Butte notified the NRC 'pursuant to 10 CFR § 40.46' of an upcoming change in the ownership of the shareholders of Crow Butte Resources. In that letter, Crow Butte informed the NRC that Cameco had agreed to purchase all of the shares of Uranerz U.S.A., Inc. — 79 of 100 shares, which would give Cameco a controlling ownership interest in Crow Butte. The letter also sought NRC confirmation that the notification satisfied 10 C.F.R. § 40.46. On June 5, 1998, the NRC responded, notifying Crow Butte that 'the NRC staff finds the proposed change in shareholder ownership to be acceptable' and consenting to the change. The NRC also determined that no amendment to Crow Butte's source material license was necessary and attached a Technical Evaluation Report assessing the proposed change in ownership." (Citations omitted.); see also Tr. at 519.

⁸² See, e.g., Staff 6/9/08 Response at 6; Tr. at 478.

⁸³ Petitioners 5/23/08 Brief at 15 (internal citations omitted); Tr. at 457. We note, regarding section 40.9, that the Licensing Board in the *Crow Butte* license renewal proceeding observed, in response to arguments that the section comes into play only in enforcement proceedings, that this did not place the issue beyond consideration in a licensing proceeding, and we agree. See *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691, 745 (2008). We agree with this assessment. It would make no sense, in a proceeding on a license amendment application, to ignore inaccuracies in the application in determining whether to grant the application.

⁸⁴ 42 U.S.C. § 2232.

applicants for licenses state their citizenship.⁸⁵ As the Crow Butte license renewal licensing board has pointed out, the Commission has interpreted this requirement to include, for corporate applicants, place of incorporation, citizenship of directors and principal officers, and whether “owned, controlled, or dominated by . . . a foreign corporation”⁸⁶

If Contention E concerned only the issue of disclosure of Crow Butte’s foreign ownership, and no questions of the significance or impact of such ownership, it might be argued that Applicant could easily cure any possible defect in its Application by amending it with respect to its actual ownership and citizenship and thereby dispose of the contention. Intervenor’s have, however, alleged more than a mere lack of disclosure of Applicant’s foreign ownership. They have made factual allegations concerning various impacts of such ownership, including the potential for exports to countries other than Canada, and alleged motivation of the Canadian owners to put their own profits above environmental and health concerns in the U.S.⁸⁷

In addition, Intervenor’s make various legal arguments in response to Staff and Applicant. For example, they point out that under 10 C.F.R. § 40.2, relevant provisions of Part 40 “apply to all persons in the United States,” and not to those outside the United States, even those in Canada.⁸⁸ We note that it came out

⁸⁵ Petitioners 5/23/08 Brief at 13. During oral argument, Intervenor’s also urged consideration of the public notice aspects of what is in an application — i.e., how the public is notified of such information, so that members of the public can effectively decide whether and what issues to raise regarding any such application. *See* Tr. at 572-73.

⁸⁶ LBP-08-24, 68 NRC at 747 (citing 64 Fed. Reg. 52,355, 52,357 (Mar. 1, 1999); 64 Fed. Reg. 44,635, 44,649 (Aug. 16, 1999); 10 C.F.R. §§ 50.33(d)(3), 52.16, 76.33(a)(2)).

⁸⁷ *See supra* Section II.B.1.

⁸⁸ *See* Petitioners 5/23/08 Brief at 14. Regarding this and other legal arguments of the Intervenor’s as summarized herein, we find that none are the sort of additional support for a contention that “cannot be introduced in a reply brief . . . unless the petitioners meet the late-filing criteria set forth in 10 C.F.R. § 2.309(c), (f)(2).” *See* Staff 6/9/08 Response at 3 (citing *In re Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006)). To the contrary, all respond either to arguments of Staff and/or Applicant, or to our request for further briefing on specified issues that arose out of Staff and Applicant’s objections to Contention E, regarding scope and materiality questions. *See supra* note 73.

To the extent that any legal issues not specifically addressed herein may later arise in the proceeding, we leave them to be addressed, as and to the extent called for, at a later date. Staff has informed us that they do not expect to complete the final technical evaluation of the Application until May 2009, and the final environmental assessment until June 2009. *See* NRC Staff’s Response to Board’s Order of August 5, 2008 (Aug. 15, 2008) at 7 [hereinafter Staff 8/15/08 Response]. Therefore, at this point there is no urgency regarding any determinations in this regard. Further, we note that, to the extent required, Applicant could easily amend its Application to correct any deficiencies relating to stating

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in our site visit that, whatever Crow Butte mine personnel may do with regard to NRC requirements, ultimate control of the Licensee/Applicant appears to rest with Cameco personnel, who are based in Canada, not the United States.⁸⁹ While the ultimate findings of fact regarding such control remain for another day, after any hearing on Contention E, these circumstances highlight the significance of the question of the extent to which it is realistic to expect that relevant regulatory requirements could be enforced with Crow Butte if the need ever arose, in light of section 40.2.⁹⁰ And this would in turn seem to bring into question whether the “applicant’s proposed . . . procedures are adequate to protect health and minimize danger to life or property,” under section 40.32(c). These considerations, as well as Intervenor’s factual allegations regarding the impacts and significance of Applicant’s foreign ownership, also counter, and effectively render irrelevant in this proceeding, Staff’s claim that foreign ownership *alone* is insufficient to support a determination that issuance of the requested license amendment would be “inimical to the common defense and security.”⁹¹ More than the mere fact of foreign ownership is obviously at issue in Contention E.

Before reaching our ultimate conclusion on the admissibility of Contention E, however, we consider two additional, related arguments of the NRC Staff and Applicant. First, they maintain that the foreign ownership of the Applicant is not relevant in this proceeding, because the proceeding is a license *amendment* proceeding, and the amendment application involves no “change in ownership” or proposal to export any source material; second, they urge that any questions

its ownership and citizenship, leaving at such point only the matter of the significance and impact of foreign ownership to be determined.

⁸⁹This site visit was conducted with all parties present, on July 24, 2008, and consisted of a verbal presentation by a Crow Butte facility manager and a tour of both the current and proposed sites, with Crow Butte personnel available to answer questions, although without any court reporter present, as is normally the case with such site visits. See Licensing Board Order (Following Up on Matters Addressed at May 8, 2008, Telephone Conference, and Raised by Petitioner Debra White Plume) (May 14, 2008) (unpublished), in which the Board cautioned that “the Board and all Parties shall make every effort to assure that no *ex parte* communications are engaged in, even inadvertently.” *Id.* at 2.

⁹⁰See Tr. at 458, for examples pointed out by Intervenor’s in oral argument, including meetings of the Cameco board in Canada regarding Crow Butte.

⁹¹Staff 5/23/08 Response at 4. We note that Staff has cited no authority for its proposition, and in oral argument agreed that, if the foreign country were one that might pose some national security risk, this might have some impact on this proceeding such that Staff would bring this to our attention. Tr. at 529-30. Staff’s general position with regard to the fact of foreign ownership alone, however, has been that any issues of national security related to foreign ownership should be dealt with in an enforcement proceeding, and that foreign ownership is outside the scope of this license amendment proceeding. See, e.g., Tr. at 524-30, 567-68. And Applicant has maintained that, even if the owner were a national from a country that posed a security risk to the U.S., this should not make any difference in this case. Tr. at 486-87.

about any eventual destinations of any uranium mined by Crow Butte at its expansion site will be dealt with in future export license proceedings.⁹²

Regarding Staff's and Applicant's arguments centering around the fact that this proceeding comes to us as a license amendment proceeding,⁹³ there is indeed precedent for the principle that in license amendment proceedings matters not part of the amendment at issue are not within scope. Before addressing certain law cited to us in this proceeding, however, we note the somewhat random nature of how this case came to us as a license amendment proceeding rather than as a new license application, notwithstanding the fact that the North Trend Expansion Project is not contiguous with the originally licensed mining site.

When asked what standards are used in determining whether to treat an application as one for a license amendment or a new license, Staff stated that it was "currently looking at the issue."⁹⁴ Further, according to Staff, proximity "is a factor when we're looking at whether or not we're going to do an amendment for these particular types of facilities or . . . a new license";⁹⁵ and "the policy of the NRC with regard to satellite facilities and amendments goes all the way back . . . to the 80's."⁹⁶ Staff provided no written policy or citation to any authority for this, however. Staff indicated that proximity is not the only factor in such determinations, and that in several instances it had issued amendments in similar circumstances, including one in which the new site was 100 miles from the original site, but that in that case as in this proceeding, "only the first part of the in situ leach recovery process is occurring at [the new] facility and then the rest of it happens at the main facility."⁹⁷ It has been the Staff's practice for "a number of years" to determine whether to treat an application as a new license or a license amendment,⁹⁸ but the standards for how this is accomplished have "not been codified," and Staff counsel was "not in a position to comment on it publicly"⁹⁹ — all that exists formally, relating to any such standards, is apparently "the regulatory framework" of 10 C.F.R. Part 40.¹⁰⁰ In light of these Staff statements,

⁹² See, e.g., Staff 5/23/08 Response at 3-6; Applicant 5/23/08 Brief at 7-8.

⁹³ See, e.g., Staff 5/23/08 Response at 3 ("the amendment application is requesting approval to conduct an additional in-situ leach uranium recovery operation at another location" and "does not involve a change of ownership"); Applicant 5/23/08 Brief at 7-8 ("The licensing review for an amendment is not a forum for reassessing issues that were resolved in the initial licensing review"; "[a]ny challenge related to the ownership of Crow Butte is an impermissible challenge to an activity already permitted under the existing license").

⁹⁴ Tr. at 538.

⁹⁵ Tr. at 539.

⁹⁶ *Id.*

⁹⁷ Tr. at 540; see Tr. at 540-42.

⁹⁸ Tr. at 543.

⁹⁹ Tr. at 542; see also Tr. at 544-45.

¹⁰⁰ Tr. at 545.

while we do not rest our decision herein on these circumstances, we cannot help but observe that Staff's and Applicant's arguments concerning the status of this proceeding as a "license amendment proceeding" are less credible that they might be, were there existing published standards on how it is determined whether a proceeding should be considered as an amendment application or a new license application, and were the expansion site part of the same piece of property and not separated by several miles distance from the original site.

Staff also, however, cites in support of its "license amendment" and "export license" arguments two Commission decisions, *In re Kerr-McGee Corp.* (West Chicago Rare Earths Facility)¹⁰¹ and *In re Curators of the University of Missouri*.¹⁰²

*Kerr-McGee*¹⁰³ involved a Part 40 source materials license for an inactive thorium milling facility, a requested amendment that would permit certain demolition and storage activities, and various challenges raised by the City of Chicago, none of which concerned foreign ownership or any related matters.¹⁰⁴ In a footnote to language describing the NRC Staff's grant of the requested amendment, the Commission quoted from the requirements of section 40.32 for granting such amendments, stating in passing that it "should be noted, however, that in this instance, which involves *no concern over* import or export of nuclear materials, common defense and security considerations under section 40.32(d) are not implicated."¹⁰⁵ The present case, involving as it does definite concerns that have been raised over foreign ownership and export of materials, is clearly distinguishable from the *Kerr-McGee* case, and to deny admission of Contention E based on the dicta cited by Staff would be inappropriate.

University of Missouri involved an application for amendments to two licenses, one relating to special nuclear material and source material and one relating to "Broad Scope Byproducts," that would authorize possession and use of uranium and certain other elements, as well as the conducting of certain basic research on the chemistry of these elements in their pure form.¹⁰⁶ The ultimate objective of the research was to develop ways of separating long-lived from shorter-lived radioactive elements in spent fuel so as to reduce the volume of radioactive

¹⁰¹ Staff 5/23/08 Response at 4 (citing *In re Kerr-McGee Corp.* (West Chicago Rare Earths Facility), CLI-82-2, 15 NRC 232 (1982)).

¹⁰² *Id.* (citing *In re Curators of the University of Missouri* (TRUMP-S Project), CLI-95-1, 41 NRC 71, 165 (1995)). We note at this point intervenors' response to Staff, to the effect that the *University of Missouri* and *Kerr-McGee* cases are both pre-9/11 cases. See Tr. 456-57. While reliance on this circumstance is not necessary to our decision herein, we agree that issues of national security have obviously taken on greater weight and significance in the wake of the attacks of September 11, 2001.

¹⁰³ We note that the *Kerr-McGee* case was also cited by Applicant in its 5/23/08 Response at 8.

¹⁰⁴ *Kerr-McGee*, CLI-82-2, 15 NRC at 234-35, 242.

¹⁰⁵ *Id.* at 239 n.3.

¹⁰⁶ *Univ. of Missouri*, CLI-95-1, 41 NRC at 86, 88.

waste required to be stored in high-level nuclear waste disposal facilities and allow the majority of the waste to be stored until the shorter-lived elements could decay to low-enough levels of radioactivity to permit lower-cost disposal as low-level waste.¹⁰⁷ Among the concerns raised by intervenors in the case was the contention “that the University’s research project would, if successful, adversely affect efforts to restrain nuclear proliferation,” by leading to “commerce in large amounts of separated weapons-usable materials.”¹⁰⁸

The Commission in *University of Missouri* upheld part of the presiding officer’s rejection of the intervenors’ argument, finding, as noted by Staff, that they were “not entitled . . . to litigate this area of concern unless the specific ‘common defense and security’ risk asserted . . . is reasonably related to, and would arise as a *direct* result of, the specific license amendments that the University asks the Commission to approve in this proceeding.”¹⁰⁹ Again, however, the case before us is also distinguishable from the *University of Missouri* case. As the Commission pointed out there, the University’s proposed research did not “lead ‘directly’ to nuclear weapons proliferation,” but rather was “many steps removed from even the possibility of such proliferation.”¹¹⁰ The Commission continued:

First, even if the University’s initial research is successful, Congress or DOE may still choose (for policy, economic, or other reasons) not to authorize the additional research necessary to render the process commercially viable. Second, if such a second round of research is authorized, it still may not be successful. Third, if the second round of research is both authorized and successful, the federal government and industry may still choose not to use the process, again due to policy, economic, or other considerations (such as the availability of a more preferable means of nuclear waste disposal). And fourth, if the federal government and industry do choose to use the process, the government can still regulate the use and distribution of the process so as to preclude the nuclear weapons proliferation that the Intervenor fear. Only at this fifth stage would the Intervenor’s concerns about proliferation and safeguards become *ripe for concern*. We are loath to halt basic research in its tracks on the purely speculative ground that its fruits may someday be put to improper use.

It will be up to future policymakers to decide whether and how to use the results of the University’s research. The policymakers’ future decision may be the proximate cause of the Intervenor’s concerns, but the basic research itself cannot be. The connection is simply too *remote and speculative*, being premised upon the future third-party activities that are unrelated to the specific activities authorized by the license amendments. Consequently, we conclude . . . that the Intervenor’s

¹⁰⁷ *Id.* at 88.

¹⁰⁸ *Id.* at 163-64.

¹⁰⁹ *Id.* at 165; *see also* Staff 5/23/08 Response at 4.

¹¹⁰ *Univ. of Missouri*, CLI-95-1, 41 NRC at 165.

“proliferation” area of concern is not a direct consequence of the proposed license amendments (or the Commission’s approval thereof)¹¹¹

In this proceeding, by contrast, there are not, for example, multiple rounds of research intervening between this proceeding and any export license proceeding or transfers of material outside the U.S., nor are such transfers at all speculative, given that Applicant has stated that export licenses have been obtained in the past¹¹² and it appears that this will continue in the future if the Application at issue is granted.¹¹³

Moreover, if we were to follow the arguments of the NRC Staff and the Applicant, Intervenor’s concerns would *never* become “ripe for concern,”¹¹⁴

¹¹¹ *Id.* at 165-66 (emphasis added).

¹¹² Tr. at 447.

¹¹³ *See, e.g.*, Applicant 8/29/08 Response at 16 (“In practice, *many* shipments of natural uranium directly from Crow Butte to a conversion facility in Canada are authorized under an export license issued to RSB Logistics Services. *See* Export License XSOU8798, dated March 4, 2004 (listing Crow Butte as one of several ‘suppliers’ of natural uranium).” (Emphasis added.)); Applicant’s Reply to Petitioners’ Brief on Export Licensing (Sept. 8, 2008) at 3 (“any export of natural uranium from Crow Butte *will likely be made* in accordance with an *existing or future* specific license [*sic*] issued in accordance with the process established in Part 110.” (Emphasis added.)) These statements undermine Applicant’s insistence elsewhere in the same filing that future export licenses are “speculative.” *Id.* at 2; *see also* Tr. at 482-83.

¹¹⁴ Regarding the ripeness question, in the 1978 Supreme Court *Duke Power* case — involving the constitutionality of the Price-Anderson Act, 42 U.S.C. § 2210; the standing of certain organizations and individuals living within close proximity to the then-planned Catawba and McGuire nuclear power plants to challenge the Act’s limitation of liability on the part of the plant owners; and the ripeness of the issues for adjudication, 438 U.S. at 62-68 — the Supreme Court found it appropriate in deciding the ripeness question to look to whether “delayed resolution of . . . issues would foreclose any relief from the present injury suffered by appellees — relief that would be forthcoming if they were to prevail in their various challenges to the Act.” *Id.* at 82; *see id.* at 81-82. (Again, the relief in this proceeding would be denial of the requested license amendment. *See supra* Section II.A.) Although the ripeness doctrine as generally analyzed by Federal Courts in addressing challenges of administrative agency actions may not be completely on point (*see, e.g., Abbott Laboratories v. Gardner*, 387 U.S. 136, 148-49 (1967) (the “basic rationale [of the ripeness doctrine] is to prevent the courts, through avoidance of premature adjudication, from entangling themselves in abstract disagreements over administrative policies, and also to protect the agencies from judicial interference until an administrative decision has been formalized and its effects felt in a concrete way by the challenging parties”)), consideration of it to the extent it is relevant and helpful guidance is appropriate in an adjudicatory proceeding such as this, in which consideration of federal case law and rules of procedure is not unusual in such circumstances. And the Supreme Court’s statement in *Duke Power* would seem to fit the matters now at issue before us.

We note in this regard the Licensing Board’s consideration, in the *Crow Butte* license renewal proceeding, of the D.C. Circuit Court of Appeals case, *Nuclear Energy Institute, Inc. v. Environmental Protection Agency*, 373 F.3d 1251 (D.C. Cir. 2004), for the principle that in deciding ripeness
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because it appears that there is essentially, as a practical matter, no way that they could ever show standing in any export proceeding, except as a discretionary matter by the Commission.¹¹⁵ Discretionary standing involves the Commission deciding that a hearing “would be in the public interest” and/or that it “would assist the Commission in making the statutory determinations required by the Atomic Energy Act.”¹¹⁶ And this, of course, as pointed out by the Applicant, involves some level of subjectivity,¹¹⁷ and is not the same as being accorded standing as of right, based on a petitioner’s own interest in a proceeding.

We do not herein presume to speak to whether standing *should* be granted in any such export license proceedings. Indeed, we note that there appear to be special considerations in such proceedings, including interaction with the Executive

questions, it is appropriate to assess “both the fitness of the issue for judicial decision and the hardship to the parties of withholding court consideration.” *Crow Butte*, LBP-08-24, 68 NRC at 720-21 (citing *NEI*, 373 F.3d at 1312-13 (quoting *Abbott Labs*, 387 U.S. at 149)). This is the same general question considered by the Court in *Duke Power*. See 438 U.S. at 81-82; see also *Medimmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 128 n.8 (2007), wherein the Supreme Court quoted the same language from the *Abbott* case.

¹¹⁵Based on Staff’s and Applicant’s arguments to the effect that all foreign ownership issues, including any issues in any way touching on future export of source materials from Applicant’s proposed expansion site, would become ripe only in a 10 C.F.R. Part 110 export license proceeding, see, e.g., Staff 5/23/08 Response at 5-6; Applicant 5/23/08 Brief at 9; Tr. at 445, 499, 523, we sought further information from Staff and the other parties regarding the export license process, including among other things “argument and supporting law relating to the standards for showing standing to participate in such a proceeding.” Licensing Board Order (Confirming Matters Addressed at July 23, 2008, Oral Argument) (Aug. 5, 2008) at 2 (unpublished); see also Licensing Board Order (Regarding Matters to Be Addressed in Further Filings by Parties) (Aug. 19, 2008) at 1-2 (unpublished) [hereinafter 8/19/08 Order]. We indicated that before ruling on the issue we wished to consider the parties’ arguments on “whether the Intervenors could realistically assert their concerns about potential exports in any future export license proceeding. 8/19/08 Order at 3 (citing Tr. at 445-47, 495-98, 610-11). Neither Staff nor Applicant, in response to more than adequate opportunity to do so, has pointed us to any export case in which standing as of right was found for any petitioner, or otherwise shown how the current Intervenors or any petitioner might show standing as of right in any future export license proceeding. See NRC Staff’s Withdrawal of Its Motion for Reconsideration and Response to Petitioners’ Motion to Strike NRC Staff’s Motion for Partial Reconsideration and Response to the Board’s Order of August 19, 2008, Exh. 1 (Sept. 16, 2008); Applicant 8/29/08 Response; Applicant 8/29/08 Reply.

In one case — the 1976 *Edlow International Co.* case, CLI-76-6, 3 NRC 563 (1976) — while no standing as of right was found as to three organizations, *id.* at 574, 578, the Commission decided as a discretionary matter to hold an “open legislative type hearing,” *id.* at 590; see *id.* at 589-91. And on one other occasion, while denying standing as of right and finding a discretionary hearing to be unwarranted, the Commission decided to permit interested participants to summarize their positions in a 2 1/2 hour public meeting, at which it also requested presentations from the Applicant and the Executive Branch. See *Transnuclear, Inc.* (Export of 93.3% Enriched Uranium), CLI-99-15, 49 NRC 366, 368 (1999).

¹¹⁶10 C.F.R. § 110.84(a)(1), (a)(2); see also Applicant 8/29/08 Response at 7.

¹¹⁷See Applicant 8/29/08 Response at 9.

Branch and other agencies, and time limits on decisions,¹¹⁸ that may distinguish them from other NRC adjudicatory proceedings. But such distinctions may be viewed as actually mitigating in favor of allowing consideration of Intervenors' arguments on the *potential* for future exports¹¹⁹ in this proceeding, as it is undisputed that they will likely follow, should the requested license amendment be granted. And the current proceeding is actually, to a virtual certainty, the *only* opportunity Intervenors will ever have to raise their concerns about foreign ownership of the Applicant.¹²⁰ In any event, we look herein only to whether the concerns of the Intervenors, *regarding the foreign ownership* of the Applicant, and potential ramifications of that, including among other things potential future exports of source material, should be permitted at this time, in this proceeding. At a minimum, it would be inappropriate to *deny* the admission of Contention E based on arguments that such issues are appropriate for consideration only later, in any export license proceedings. Nor do Staff's and Applicant's arguments negate our earlier preliminary ruling that the foreign ownership issue is both material to and within the scope of this proceeding.

In conclusion, looking at all of the circumstances discussed above, we find that Intervenors have met the requirements of 10 C.F.R. § 2.309(f)(1)(iii), (iv), and (vi), by “[d]emonstrat[ing] that the issue[s] raised in the contention is within the scope of the proceeding” and “material to the findings the NRC must make to support the action” at issue, and “provid[ing] sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.” Whatever the ultimate outcome may be on Contention E, Intervenors have raised issues in the contention that are within the scope of this proceeding under 10 C.F.R. § 40.32 and material to the findings that must be made under section 40.32, which in subsection (d) directs us to consider whether issuance of the applied-for license amendment would be “inimical to the common defense and

¹¹⁸ See *NRDC*, 647 F.2d at 1349.

¹¹⁹ By referring to the “potential” for future exports, we mean to emphasize that we do not see this proceeding as an occasion for litigation of issues such as might arise in an actual export license proceeding on specific exports, but expect rather that issues relating only to the *potential* for future exports would not be excluded merely on the basis that they concern possible future exports.

¹²⁰ We do not find persuasive Applicant's insistence that our questions concerning the realistic likelihood of Intervenors ever being granted standing in any future export license proceeding would result in “[l]icensing boards [needing] to determine, on a hypothetical basis, whether . . . prospective petitioners are ‘likely’ to be admitted as a party” in any and all future cases regarding any and all “possible future applications.” See Applicant 8/29/08 Response at 3. We address here *only* the arguments raised by Applicant itself, and the NRC Staff, to the effect that any concerns about foreign ownership and its future ramifications may only be considered in future *export license* proceedings. We do not speak to the particulars of any other proceedings involving “ripeness” or similar arguments, which would of course be addressed in those proceedings themselves, and would arise generally as a consequence of parties such as the Applicant asserting arguments in the nature of lack of ripeness.

security.’’ Clearly, if the applicant in even a license amendment proceeding were controlled by foreign nationals who presented some security risk to the United States, under section 40.32(d) this would be within the scope of the proceeding. It does not logically follow that the identity of the nation in question should affect the issue of scope. While such identity may be quite relevant on the merits of a contention relating to foreign ownership, this is not an appropriate basis to deny admission of such a contention.

Intervenors have also supported Contention E sufficiently to show a genuine dispute with the Applicant on material issues relating to its ownership and control by a foreign corporation arguably not subject to NRC regulations. Although, as noted above, there appears to be little dispute at this point that Applicant is in fact owned by Cameco, a Canadian corporation, and although particular individual facts related to this may not be in dispute, there is significant disagreement over the factual and legal implications and significance of these facts. Intervenors in Contention E allege not only the foreign ownership of Crow Butte and a failure to disclose this in the Application; they allege certain consequences of this, concerning environmental and health issues being secondary to ‘‘foreign profits,’’ future exports, and inimicality to the national interest, related to Cameco’s business relationships with other countries.¹²¹ The parties clearly disagree as to the significance and impacts of ownership of the Applicant by Cameco. Thus, even assuming that the fact of foreign ownership is not in dispute, and even though Applicant could easily cure its prior admitted failure to disclose such ownership and arguably moot some issues related to requirements regarding such disclosure, very much in dispute are questions of the factual and legal ramifications of Cameco’s ownership of Applicant Crow Butte Resources, Inc. And these include, in addition to the preceding alleged consequences of foreign ownership, the fundamental question of the ability to assure compliance with NRC rules relating to the proposed expansion site.¹²² We therefore admit Contention E for litigation in this proceeding.

¹²¹ As Applicant points out, it has been held that ‘‘there is no statutory or regulatory requirement that an applicant demonstrate any benefit from a requested license amendment.’’ Applicant 5/23/08 Brief at 11 (citing *Tennessee Valley Authority* (Sequoyah Nuclear Plant, Units 1 and 2; Watts Bar Nuclear Plant, Unit 1), LBP-02-14, 56 NRC 15, 35 (2002)). But Applicant itself touts itself as producing uranium that ‘‘will benefit U.S. utilities,’’ *id.*, and we do not rule out any relevance whatsoever of such questions, whatever the answers to them might be.

¹²² See 10 C.F.R. § 40.2. The possibility that Staff might separately initiate an enforcement proceeding (in any situation that it warranted to be appropriate) does not negate the relevance or materiality of the foreign ownership issue under section 40.32(d), which to the contrary places it squarely within the scope of the proceeding. And, as the Staff itself has pointed out, according to its Standard Review Plan for In Situ Leach Uranium Extraction License Application, NUREG-1569

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It may be that further briefing on the foreign ownership issue and certain related principles as discussed above may well be in order — perhaps in conjunction with a partial hearing on this issue alone, prior to a hearing on the hydrological questions at issue in Contentions A and B¹²³ but after the parties have at least commenced either Subpart L disclosure of relevant facts or Subpart G discovery. We will take this up in another prehearing conference to be held at an appropriate time, to be announced.

C. Intervenor’s Request for Sanctions Against NRC Staff

As noted above, in our August 19 Order, among the questions we directed the parties to address was how an intervenor might show standing to participate in an export license proceeding.¹²⁴ Ten days later, NRC Staff filed a motion for partial reconsideration, asking the Board to reconsider its August 19 Order “to the extent that it necessitates the Staff to engage in speculation regarding hypothetical situations”¹²⁵ On September 8, Intervenor moved to strike the Staff’s motion for partial reconsideration on the grounds that it failed to meet the standards described in 10 C.F.R. § 2.323(e).¹²⁶ On September 16, 2008, NRC Staff voluntarily withdrew its motion for partial reconsideration, thereby mooted Intervenor’s motion to strike.¹²⁷

Now, Intervenor asks the Board to impose sanctions on NRC Staff for not

(June 2003 Final Report) (ADAMS Accession No. ML003759117) [hereinafter NUREG-1569], it does “examine corporate management and control issues . . . even in the license amendment process.” Tr. at 517-18; *see also* NUREG-1569 at 5-1 *et seq.*; Tr. at 510. Although reference to such a guidance document is not binding, in this case we find Staff’s statements based on NUREG-1569 to elucidate our inquiry herein. Issues relating to whether persons in Canada might exert some control over the activities of the Applicant with regard to the proposed expansion site would seem to fall under the ambit of “corporate management and control issues.”

¹²³ We expect that the matters at issue on Contention C, regarding consultation with tribal authorities regarding historic and prehistoric cultural resources may be resolved when the Staff undertakes its own consultations and evaluation, or that, alternatively, another contention may be filed based on whatever action the Staff takes or does not take. We leave this issue to be resolved after the Staff has taken action on the consultation issue.

¹²⁴ 8/19/09 Order at 3.

¹²⁵ NRC Staff’s Motion for Partial Reconsideration and Response to Board’s Order of August 19, 2008 (Aug. 29, 2008) at 1 [hereinafter Motion for Partial Reconsideration].

¹²⁶ Petitioners’ Motion to Strike NRC Staff’s Motion for Partial Reconsideration Dated August 29, 2008 (Sept. 8, 2008) [hereinafter Motion to Strike].

¹²⁷ NRC Staff’s Withdrawal of Its Motion for Reconsideration and Response to Petitioners’ Motion to Strike NRC Staff’s Motion for Partial Reconsideration and Response to the Board’s Order of August 19, 2008 (Sept. 16, 2008) [hereinafter Withdrawal of Motion for Reconsideration].

withdrawing its motion for reconsideration earlier.¹²⁸ Intervenors point out that, just 12 days earlier, NRC Staff had refused Intervenors' request that it withdraw its motion, thereby forcing Intervenors to spend time and resources filing a motion to strike.¹²⁹ As a form of sanction, Intervenors want the Board "to order the NRC Staff to pay costs to Intervenors of \$1,500 to make up for the complete waste of the time and resources of the Intervenors in preparing and filing the Motion to Strike"¹³⁰ NRC Staff, however, maintains that monetary sanctions are inappropriate because Staff did not "engage in prejudicial or bad-faith behavior" and, in any case, there is no statute authorizing the Board to order such a payment of appropriated funds.¹³¹

Regarding the Board's authority, the Commission has long recognized the Board's authority to impose sanctions on participants in a licensing proceeding. In a 1981 Statement, the Commission explained that "[w]hen a participant fails to meet its obligations, a board should consider the imposition of sanctions against the offending party."¹³² In a later decision, the Commission affirmed that "[l]icensing boards have broad discretion to sanction willful, prejudicial, and bad-faith behavior."¹³³ But the Commission has never discussed the imposition of *monetary* sanctions, nor has any licensing board, to our knowledge, ordered monetary compensation from Staff to any intervenors.¹³⁴ NRC Staff points us to the Energy and Water Development Appropriations Act of 1993, by which Congress set limits on the NRC's use of appropriated funds,¹³⁵ and section 502 of which instructs that NRC appropriations shall not "be used to pay the expenses

¹²⁸ See Petitioners' Answer to NRC Withdrawal of Motion for Partial Reconsideration of August 19, 2008 Order (Sept. 22, 2008) [hereinafter Answer to Withdrawal of Motion for Reconsideration].

¹²⁹ *Id.* at 1-2.

¹³⁰ *Id.* at 3. In the alternative, Intervenors ask the Board to issue a "default order under [10 C.F.R. §] 320(a) in which the Board should order that the facts concerning Questions 1, 2 & 3 are as described by Petitioners in their briefing in response to the August 19th Order." *Id.* at 2.

¹³¹ See NRC Staff's Response to Petitioners' Motion for Sanctions (Sept. 26, 2008), at 2-3 [hereinafter Response to Motion for Sanctions].

¹³² *Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 454 (1981).

¹³³ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-1, 53 NRC 1, 7 (2001).

¹³⁴ Licensing boards have awarded payment of litigation fees and expenses from a licensee to an intervenor, if "there has been legal harm to the Intervenors caused by some activity or action of the Licensee." *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-99-27, 50 NRC 45, 53 (1999); see also *Duke Power Co.* (Perkins Nuclear Station, Units 1, 2, and 3), LBP-82-81, 16 NRC 1128, 1140-41 (1982).

¹³⁵ Energy and Water Development Appropriations Act of 1993, Pub. L. No. 102-377, Title V, § 502, 106 Stat. 1342 (1992). This law made permanent the proscription against funding to intervenors that had been attached to NRC appropriations bills for several previous years. See, e.g., Pub. L. No. 97-88, Title V, § 502, 95 Stat. 1148 (1981).

of, or otherwise compensate, parties intervening in regulatory or adjudicatory proceedings”¹³⁶

Given that the Commission’s calls for licensing boards to sanction parties that violate NRC rules do not have the purpose of relieving intervenors of their adjudicatory expenses, but would merely have an incidental effect, as part of an overall effort to ensure that “the [licensing] process moves along at an expeditious pace”¹³⁷ that in no way singles out intervenors “as a special class,”¹³⁸ it might be said that in appropriate situations licensing boards do have the authority to impose monetary sanctions on any party to any other party without violating the prohibition of section 502.

In this instance, however, we decline to award the monetary sanctions sought by Intervenor, because they are not warranted in any event. The Commission has made clear that sanctions are appropriate only in cases of “willful, prejudicial,

¹³⁶ *Id.* § 502. According to NRC Staff, this prohibition extends to any form of monetary payment from NRC Staff to Intervenor — including monetary sanctions. As support for this position, NRC Staff cites a Comptroller General decision, which states that the terms of section 502 “unambiguously prohibit the use of appropriated funds for payments of any kind to intervenors.” *Availability of Funds for Payment of Intervenor Attorney Fees — Nuclear Regulatory Commission*, 62 Comp. Gen. 692, 695 (1983) (emphasis added). (In this decision, the Comptroller General was actually interpreting an earlier incarnation of section 502, identical in language, which appeared in the Energy and Water Development Appropriation Act of 1982.)

But in an earlier decision, the Comptroller General had also explained that a Commission action does not violate section 502 simply because it “incidentally eases the cost burden on intervenors,” upholding a Commission proposal to provide free hearing transcripts to all parties to Commission proceedings, even though the proposal would technically provide monetary assistance to intervenors. *Free Transcripts of Adjudicatory Proceedings — Nuclear Regulatory Commission*, B-200585, 1981 WL 23995, *3 (Comp. Gen. 1981). In this decision, the Comptroller General interpreted section 502 as it appeared in the Energy and Water Appropriations Act of 1981. The Comptroller General explained that “the intent of [section 502] was to preclude the Commission from implementing any program which was intended to and had the principal effect of paying the adjudicatory expenses of intervenors as a special class.” *Id.* at *2. The proposal to provide transcripts, on the other hand, was designed principally “to increase the efficiency of [the Commission’s] own operations and to expedite the handling of license applications.” *Id.* at *3. Thus, it was not held to violate section 502.

More recently, a Licensing Board relied on *Free Transcripts* to find that payments from the NRC to an intervenor’s expert witness — payments which are required by 10 C.F.R. § 2.740a(h) — are not barred by section 502. *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-03-14, 58 NRC 104 (2003). The Board reasoned that the fact that section 2.740a(h) (the provisions of which are now found in 10 C.F.R. § 2.706(a)(8)), as applied to intervenors would incidentally provide a monetary benefit to intervenors, “does not require appropriated funds to be used to provide special assistance just to intervenors.” *Id.* at 112. Rather, it requires assistance to all parties that obtain expert witnesses. Because “the rule treats all parties the same,” the Board explained, it does not violate section 502. *Id.*

¹³⁷ *Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC at 453.

¹³⁸ *Free Transcripts*, 1981 WL at *3.

and bad-faith behavior,”¹³⁹ and the record fails to establish that the NRC Staff acted willfully or in bad faith by not withdrawing its motion for reconsideration sooner. Thus, no sanction — either monetary or in the form of a default order — would be appropriate. Intervenor’s request for sanctions is therefore denied.

III. INTERVENORS’ NEW CONTENTION ON ARSENIC AND HEALTH IMPACTS

Intervenor on September 22, 2008, filed a new contention and a petition seeking leave to file the same.¹⁴⁰ Intervenor indicates that the filing of this contention was prompted by the August 20, 2008, publication in the *Journal of the American Medical Association* of a study by the Johns Hopkins Bloomberg School of Public Health.¹⁴¹ The conclusions of this study include a “finding support[ing] the hypothesis that low levels of exposure to inorganic arsenic in drinking water, a widespread exposure worldwide, may play a role in diabetes prevalence.”¹⁴² Intervenor connects this new information with, among other things, additional newly discovered information about a high incidence of pancreatic cancer in Chadron, Nebraska, and on the Pine Ridge Indian Reservation; and already existing information about a link between diabetes and pancreatic cancer, and about arsenic in the water that is returned to relevant aquifers during the course of Crow Butte’s mining process.¹⁴³

Applicant opposes admission of this new contention, arguing among other things that the contention fails to meet requirements related to timeliness and amendment of contentions found in 10 C.F.R. §§ 2.309(c)(1) and 2.309(f)(2), as well as the contention admissibility requirements of section 2.309(f)(1).¹⁴⁴ NRC Staff also opposes admission of this new contention, asserting that it fails to meet the same requirements cited by Applicant, and arguing as well that the Hopkins study in fact indicates that further studies are “needed to establish whether [the association between low levels of arsenic and diabetes] is causal.”¹⁴⁵ Staff also, however, argues that “the issues raised by this new contention —

¹³⁹ *Private Fuel Storage*, CLI-01-1, 53 NRC at 7.

¹⁴⁰ Petition for Leave to File New Contention re: Arsenic (Sept. 22, 2008) [hereinafter 9/22/08 Petition].

¹⁴¹ *Id.* at 1.

¹⁴² *Id.*, Exh. A, Ana Navas-Ancien et al., *Arsenic Exposure and Prevalence of Type 2 Diabetes in US Adults*, 300 *J. Am. Med. Ass’n* 814 (2008) [hereinafter Johns Hopkins Study].

¹⁴³ 9/22/08 Petition at 1-8.

¹⁴⁴ Crow Butte Resources, Inc.’s Response to Consolidated Petitioners’ Late-Filed Contention (Oct. 14, 2008) at 1-8.

¹⁴⁵ NRC Staff’s Response in Opposition to Petition for Leave to File New Contention re: Arsenic (Oct. 14, 2008) at 17 [hereinafter Staff 10/14/08 Response] (quoting Johns Hopkins Study at 814).

potential human health effects of consuming arsenic — are subsumed within either admitted Contention A or B.’’¹⁴⁶

We agree with Staff that the issues set forth in Intervenor’s new contention fall within already-admitted Contention B, which we admitted in the following form:

Contention B. CBR’s proposed expansion of mining operations will use and contaminate water resources, resulting in harm to public health and safety, through mixing of contaminated groundwater in the mined aquifer with water in surrounding aquifers and drainage of contaminated water into the White River.

The issues in their newly proffered contention are clearly relevant to Contention B, and Intervenor may therefore litigate these matters as part of the litigation of Contention B.¹⁴⁷

IV. PARTICIPATION OF BLACK HILLS/OGLALA DELEGATION OF GREAT SIOUX NATION TREATY COUNCIL

The Black Hills Sioux Nation Treaty Council has indicated that it wishes to participate in this proceeding, with regard to all contentions.¹⁴⁸ In addition we have filed before us a pleading of the Oglala Delegation of the Great Sioux Nation Treaty Council,¹⁴⁹ which we construe as indicating a desire to participate in this proceeding. We presume that there is but one Treaty Council and that both pleadings refer to that same Council. We also note that the Licensing Board in the related license renewal proceeding has permitted the participation of the Treaty Council in that proceeding,¹⁵⁰ and we likewise find that this would be appropriate

¹⁴⁶ *Id.* at 3.

¹⁴⁷ We note that the Licensing Board in the license renewal proceeding on Crow Butte’s existing license admitted essentially the same contention. Order (Ruling on Motion to Admit New Contention) (Dec. 10, 2008) (unpublished). Although the issues in the contention before the license renewal board involve effects from the Applicant’s current site, the same issues are generally applicable with regard to the contention before us, and we adopt that board’s reasoning as supporting our finding that the matters raised in the new contention may be litigated as part of Contention B in this proceeding. While the geology of the proposed expansion site will differ from that of the original site (to an extent to be determined), the record of any contamination that may have come from the original site will obviously be relevant to the probability of contamination resulting from expansion to the new site, given that they are in the same general area.

¹⁴⁸ Black Hills Sioux Nation Treaty Council’s Response to the Board’s Order Regarding Participation and Adoption of Contentions (Aug. 15, 2008).

¹⁴⁹ Petitioner Oglala Delegation of the Great Sioux Nation Treaty Council’s Reply to Applicant and NRC Answers to Petition for Leave to Intervene (Sept. 3, 2008) [hereinafter Treaty Council Reply].

¹⁵⁰ See *Crow Butte*, LBP-08-24, 68 NRC at 82; see also Transcript in License Renewal Proceeding at 424-29.

in this proceeding. We would ask that the Treaty Council indicate which title is more correct. We will address at the next prehearing conference in the proceeding the possibility of coordinating and consolidating the presentations of the Tribe, the Treaty Council, and the Petitioners with regard to the various contentions.¹⁵¹

V. INTERVENORS' REQUEST FOR SUBPART G HEARING

The Intervenors have formally requested that this Board apply “Subpart G Hearing Procedures to this proceeding, pursuant to 10 C.F.R. § 2.310(d).”¹⁵² Both Staff and Applicant oppose this request,¹⁵³ arguing that Intervenors’ reliance on section 2.310(d) is misplaced as it does not apply to license amendments issued under Part 40, but instead “applies only to ‘nuclear power reactors.’”¹⁵⁴ We note also the provision in 10 C.F.R. § 2.310(a), to the effect that “licensee-initiated amendment[s] . . . subject to part[] . . . 40 . . . may be conducted under the procedures of subpart L of [Part 2],” suggesting that whether or not to proceed under Subpart L is a discretionary matter. In the end, however, we are persuaded that the more specific provisions of 10 C.F.R. § 2.700 control with regard to Subpart G hearings. Section 2.700 provides that Subpart G applies only to certain enumerated types of proceedings, *not including* proceedings such as the instant case, *but including* “any other proceeding as ordered by the Commission.”¹⁵⁵ We note as well that this section concludes with the language that, “[i]f there is any conflict between the provisions of this subpart and those set forth in subpart C of this part [§ 2.300 *et seq.*], the provisions of this subpart control.”¹⁵⁶

We therefore do not grant Intervenors’ request to conduct this proceeding under the provisions of Subpart G. We do, however, recommend to the Commission that it order that the proceeding be conducted as a Subpart G proceeding. We do not make this recommendation lightly, but rather see it as appropriate in light of several circumstances, including allegations made by Intervenors that would, if this were a nuclear power reactor case, warrant proceeding under Subpart G. These allegations concern failures to disclose certain information, one instance of which Applicant has admitted — namely, that it is indeed foreign-owned as alleged by Intervenors. We hasten to note that Applicant and Staff argue that no such disclosure is required in an application under Part 40,¹⁵⁷ and thus the

¹⁵¹ See generally 10 C.F.R. § 2.329 (regarding prehearing conferences).

¹⁵² Reference Petition at 5.

¹⁵³ See, e.g., Applicant 6/9/08 Response at 11-13; Staff 5/23/08 Response at 6-9.

¹⁵⁴ Staff 5/23/08 Response at 7.

¹⁵⁵ 10 C.F.R. § 2.700.

¹⁵⁶ *Id.*

¹⁵⁷ See *supra* note 82.

significance of the failure to disclose is in dispute. At the same time, we observe that, whatever the legal requirement for such disclosure may be (and, as discussed in our ruling on Contention E, such a requirement is certainly arguable at the very least), the statements made in the Application and cited to us by Intervenors do suggest a certain lack of “completeness and accuracy.”¹⁵⁸

Specifically, we note the following language, cited by Intervenors in their Petition:

ER 1.1.1 Crow Butte Uranium Project Background

The original development of what is now the Crow Butte Uranium Project was performed by Wyoming Fuel Corporation, which constructed a research and development (R&D) facility in 1986. The project was subsequently acquired and operated by Ferret Exploration Company of Nebraska until May 1994, when the name was changed to Crow Butte Resources, Inc. (CBR). This change was only a name change and not an ownership change. CBR is the owner and operator of the Crow Butte Project.¹⁵⁹

By referring to ownership in a section of the Application addressing Crow Butte’s “Background,” and not continuing, in its recitation of Crow Butte’s ownership history, to include ownership by Cameco, Applicant might well be viewed as implying that there has been *no* “ownership change.” And one might reasonably be left with the impression that the Applicant did not wish that Cameco’s involvement be made public, as it would be if mentioned, given that, by virtue of the NRC providing the public with notice of opportunity for hearing with respect to the Application, the Application itself would thereby be made public.¹⁶⁰

As Intervenors also assert, the “nature of the issues in this case, the technical issues related to water movement, geological formations, intermixing of the aquifers, as well as the cultural and indigenous peoples issues,” also warrant holding a Subpart G hearing.¹⁶¹ We agree. We find that having live witnesses to question for clarification as they give oral testimony, as well as allowing for cross-examination of such witnesses, would enhance the presentations on, and lend needed clarity to, complex technical issues, as to which certain allegations of past withholding of information have been made.¹⁶² Although these allegations

¹⁵⁸ See 10 C.F.R. § 40.9(a).

¹⁵⁹ Reference Petition at 25.

¹⁶⁰ We are aware of no considerations at this point in this proceeding that might make any parts of the Application at issue not subject to public disclosure.

¹⁶¹ Tr. at 366.

¹⁶² See Petitioners 5/23/08 Brief at 57-61.

relate to historical information that is, in fact, in dispute,¹⁶³ it appears that disputes between Applicant and at least some of the Intervenors have been ongoing for some time, obviously continuing to this day. As noted *supra*, Intervenors also allege some motivation on Applicant's part to value the "foreign profits" of Cameco over environmental and health concerns in the U.S., based on Cameco being a Canadian corporation.¹⁶⁴ This is not to suggest the truth of this allegation, but merely to note it, in the context of an issue in which questions of motive may come into play.

The circumstances discussed in the previous two paragraphs support the appropriateness of proceeding under Subpart G. While we emphasize that we do not see the proceeding as an appropriate forum to "throw[] open an opportunity to engage in a free-ranging inquiry in the 'character' of the licensee,"¹⁶⁵ or to raise any and all possible past problems with no bearing on the matter before us,¹⁶⁶ we find allegations regarding faulting and the nature of the geology of the area surrounding the proposed expansion site to be relevant to the matters at issue in this proceeding, and that allegations of nondisclosure of information regarding these significant geological issues merit our consideration and that of the Commission.¹⁶⁷

¹⁶³ See Staff 6/9/08 Response at 9; Applicant 6/9/08 Response at 9-13; Applicant's Reply Brief Regarding Foreign Ownership and Hearing Procedures (June 16, 2008) at 6 [hereinafter Applicant 6/16/08 Reply Brief].

¹⁶⁴ See *supra* note 87 and accompanying text.

¹⁶⁵ *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 189 (1999) (citing *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 32 (1993)).

¹⁶⁶ See, e.g., Applicant 6/16/08 Reply Brief at 4-6 (citing, *Vogtle*, 38 NRC at 36 n.22).

¹⁶⁷ We recognize that Staff did respond to a letter regarding such allegations, see Staff 6/9/08 Response at 9, but this does not negate the relevance of the information in question. The Intervenors herein are primarily concerned with the purity of the water they use, and have indicated that what they want is to have a full and fair examination of all factors related to this. We find that such an examination is appropriate, and that consideration of all information relevant to such inquiry is also necessarily appropriate to such an examination.

We also recognize that Staff and Applicant challenge the fact that the information in question was not brought out by Intervenors in their original petitions. See, e.g., Staff 6/9/08 Response at 9; Applicant 6/9/08 Response at 10. The information in question was, however, brought out in response to the Board's request for further briefing on the Subpart G question. In addition, although 10 C.F.R. § 2.309(g) (which Intervenors rely on in their request) requires any petitioner relying on section 2.310(d) to "demonstrate, by reference to the contention and the bases provided and the specific procedures in subpart G . . . that resolution of the contention necessitates resolution of material issues of fact which may be best determined through the use of the identified procedures," we find that Intervenors have provided such demonstration through information provided in their Petition, and that the information about alleged nondisclosure of pertinent geological information merely adds to that in the Petition, and bolsters our recommendation herein. Moreover, the fact that

(Continued)

By analogy to the provisions of both section 2.310(d) and section 2.700, we, as the presiding officer in this proceeding, find, regarding these circumstances and allegations of nondisclosure of information, that resolution of the contentions before us “necessitates resolution of . . . issues of motive or intent of [a] party . . . material to the resolution of . . . contested matter[s].”¹⁶⁸ Although the matters at issue concern mining of source material and not a nuclear power reactor, we find that these matters hold great significance for the parties in this case, such that it, like any proceeding involving reactors and comparable circumstances, should appropriately be held under the provisions of Subpart G. We would furthermore point out that, based on our experience in this proceeding and the information we have regarding it to date, opening the proceeding up to the greater transparency associated with a Subpart G hearing would be eminently appropriate. We are confident that we can manage the proceeding so as to ensure all appropriate efficiencies and prevent any inappropriate delaying or other tactics, and would make this clear to all parties unequivocally, on an as-needed and continuing basis.

The same would apply to discovery prior to the actual hearing. Allowing for discovery under Subpart G would better ensure disclosure of all pertinent information, in a situation in which one or more parties might arguably not be motivated to be completely forthcoming under the mandatory disclosure provisions of Subpart L. We make this observation not in any way to cast any aspersions on any party, but in recognition of the fact that there have already been intimations of failure to disclose completely relevant information, and of the circumstance that the Applicant and the Intervenors already, prior to this proceeding, had an adversarial relationship. In such circumstances, it is our judgment that more complete sharing of relevant information on all matters in dispute will be forthcoming under the provisions of Subpart G, with the guiding hand of the Licensing Board to manage any disputes, in comparison to the mandatory disclosure provisions of Subpart L. Under Subpart L, notwithstanding

this information was not in the Petition would not foreclose its use in a hearing, and it would seem to defy logic not to permit a licensing board or the Commission to consider all factors that could be relevant to determining which hearing procedures under Subpart 2 are the most appropriate for any given proceeding. In this proceeding, we as the Licensing Board recommend to the Commission that the proceeding be conducted under Subpart G, for the reasons we provide herein, and think it appropriate for the Commission, in making the final ruling on this, to have all available relevant information at its disposal.

¹⁶⁸ There is one exception to this statement. We do not expect that resolution of Contention C will involve issues relating to nondisclosure of information, given that the Staff has yet to perform its function regarding consultation with the Tribe regarding historic and prehistoric cultural resources, and we expect that it will perform its duty in this regard in good faith. This has not yet, however, to our knowledge occurred. Moreover, we deem that to hold most of the proceeding under Subpart G and one part under Subpart L would add potential confusion and inefficiency to the overall proceeding. We therefore recommend that the entire proceeding be conducted under Subpart G.

their designation as “mandatory” disclosures, any actual failures to disclose will be much less apparent — indeed, virtually impossible to ascertain, as they depend on the parties to provide all information more or less “on their honor,” without any provision for parties to request specific information and specific responses. Subpart G, on the other hand, offers a manageable way in which to control the sharing of information through discovery, in which parties may bring any disputes to the Board expeditiously for resolution. Through appropriate case management, all appropriate efficiencies may thus be assured, allowing for needed sharing of information while at the same time drawing the line when this becomes overly burdensome.

We observe, finally, that a significant number of persons associated with this proceeding are Native Americans, with the Oglala Sioux Tribe and the Tribe’s Treaty Council expressing, as participants, affirmative and strong interest in the proceedings.¹⁶⁹ We note also the interest shown by the attendance of many community members and members of the Pine Ridge Reservation, including high school students, at the oral arguments in this proceeding.

In light of all the preceding considerations, we find that it would be appropriate to conduct this proceeding in the most open and transparent way possible, in a manner that will permit attendance by all who have any interest and best allow for a decision — whatever it may be (and we suggest no outcome one way or the other in anything we state herein) — that will instill trust in all parties, including the Applicant, the NRC Staff, the Intervenors, the Tribe, the Treaty Council, members of the local community surrounding the proposed expansion site, as well as any other interested persons. Again, we are confident that we can manage the proceeding in a manner that will best assure this result.

For all these reasons, we recommend that the Commission, as provided at 10 C.F.R. § 2.700, order that this proceeding be conducted under the provisions of 10 C.F.R. Part 2, Subpart G.

VI. UNOPPOSED MOTION TO MAKE FILINGS BY E-MAIL

Intervenors request that they be permitted to file documents in this proceeding as PDF documents, served by e-mail, without the need for conforming paper copies, and that the filing time for all filings be midnight Eastern time on the due date.¹⁷⁰ No party opposes this request, which is based on certain computer system

¹⁶⁹ See, e.g., Tr. at 580-84 (statements of Chief Oliver Red Cloud, Alex White Plume, and President John Steele of the Oglala Sioux Tribe). See also *United States v. Sioux Nation of Indians*, 448 U.S. 371 (1980); *Seminole Nation v. United States*, 316 U.S. 286, 296 (1942).

¹⁷⁰ Unopposed Motion to Make Filings by Email (Dec. 3, 2008) at 1 [hereinafter E-mail Filings Motion].

and software incompatibilities.¹⁷¹ Intervenors point out that in the *Crow Butte* license renewal proceeding, which is being conducted using the NRC's Electronic Information Exchange (EIE) e-filing system, they have been permitted to file by e-mail.¹⁷²

We grant Intervenors' request. Subject to any problems or necessary procedures identified by the Office of the Secretary of the Commission, beginning after issuance of this Memorandum and Order this proceeding will be conducted using NRC's EIE system, except that Intervenors will be permitted to make filings by e-mail, as in the license renewal proceeding.

VII. CONCLUSION AND ORDER

Based upon the preceding findings and rulings, we make the following conclusions, this 15th day of January 2009:

A. We conclude that Intervenors' Contention E meets all the requirements of 10 C.F.R. § 2.309(f)(1); having already found that Intervenors have established standing to participate in this proceeding, we conclude that no separate showing of standing is required with regard to the contention; and therefore ADMIT Contention E.

B. We DENY Intervenors' motion for sanctions.

C. We conclude that Intervenors' new allegations and issues submitted with respect to arsenic and health effects, as discussed in Section III, *supra*, may be litigated under already-admitted Contention B in this proceeding.

D. We conclude that the Black Hills/Oglala Delegation of the Great Sioux Nation Treaty Council may participate in this proceeding under 10 C.F.R. § 2.315(c), and request that the Treaty Council advise the Licensing Board and all parties of its correct title, single designated representative as provided in section 2.309(d)(2)(i), and counsel, within ten (10) days of issuance of this Memorandum and Order. The Board will hold another prehearing conference at a date and in a manner to be determined (i.e., in person or by telephone conference), at which matters to be considered will include the possibility of coordinating and consolidating the presentations of the Tribe, the Treaty Council, and the Petitioners with regard to the various contentions.

E. We conclude that this proceeding would appropriately be conducted according to the provisions of 10 C.F.R. Part 2, Subpart G, and, pursuant to 10 C.F.R. § 2.700, recommend to the Commission that it order this to occur.

F. We grant Intervenors' request to permit all filings in this proceeding to be made electronically, pursuant to the NRC's EIE system, with Intervenors being

¹⁷¹ *Id.* at 2.

¹⁷² *Id.*

permitted to file by e-mail, subject to any problems or necessary procedures identified by the Office of the Secretary of the Commission.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

Dr. Fred W. Oliver
ADMINISTRATIVE JUDGE

Rockville, Maryland
January 27, 2009¹⁷³

¹⁷³ Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to all participants or counsel for participants.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Dale E. Klein, Chairman
Gregory B. Jaczko
Peter B. Lyons
Kristine L. Svinicki

In the Matter of

Docket No. 70-3098-MLA

SHAW AREVA MOX SERVICES, LLC
(Mixed Oxide Fuel Fabrication
Facility)

February 4, 2009

The Commission grants the Staff's request for interlocutory review, finds that the Board overstepped the bounds of its authority, and reverses the Board's imposition of conditions and a potential sanction. The Commission also affirms the Board's dismissal of Contention 7. But the Commission further rules that if, within 60 days after the pertinent information that would support the framing of the contention first becomes available, Intervenor's submit a particularized and otherwise admissible contention regarding the construction of the MOX facility, then the contention will be deemed timely without the need to satisfy the balancing test for late-filing requirements of 10 C.F.R. § 2.309(c) or the regulatory requirements in 10 C.F.R. § 2.326 for reopening the record if otherwise applicable.

RULES OF PRACTICE: INTERLOCUTORY APPEALS

Contention 7 satisfies the interlocutory review standard in 10 C.F.R. § 2.341(f)(2)(ii) in that the ruling "affects the basic structure of the proceeding in a pervasive or unusual manner." The Board's ruling derives from the unusual (perhaps unique) nature of this proceeding. During the earlier (construction) phase of this proceeding, we considered the requirements of the AEA, and determined that a "two-step" licensing (and hearing) process for a MOX facility was permissible. We went on to approve a procedural scheme crafted

specifically for this adjudication. As a result, this proceeding is likely to generate Board rulings that “affect[] the basic structure of the proceeding in a pervasive or unusual manner” — which is just what happened here. Indeed, in our earlier *MOX* adjudication, we embraced the “affects the basic structure of the proceeding” rationale to justify interlocutory review of the “two-step licensing” issue.

**RULES OF PRACTICE: INTERLOCUTORY APPEALS;
CONTENTIONS (DISMISSAL)**

The Board overstepped its authority when it imposed the two conditions and the potential sanction for any failure by the Staff or Applicant to satisfy them. Although dismissing a contention with conditions differs in form from admitting a contention with conditions, the two are the same in substance. Both essentially hold a contention in suspended animation — the first by declaring it “dead, but then, maybe not,” and the latter by declaring it “alive, but then, maybe not.” Consequently, the Board contravened longstanding NRC precedent that “a licensing board is not authorized to admit conditionally, for *any* reason, a contention that falls short of meeting the specificity requirements” set forth in our procedural rules. The Board must instead dismiss insufficient contentions outright.

**RULES OF PRACTICE: INTERLOCUTORY APPEALS;
CONTENTIONS (DISMISSAL)**

The Board also acted without authority in instructing the Staff to give Intervenor notice of its intent to take certain administrative action (that is, issue a “completion” finding). Absent delegated authority, which is not present here, our licensing boards lack authority to direct the Staff’s nonadjudicatory actions. Boards also lack authority to establish prospective sanctions for any failure by the Staff and/or the applicant to comply with the Board’s notice conditions. Any other conclusion would inappropriately permit the Board to do indirectly what it may not do directly, that is, to avoid applying our regulations concerning late-filed contentions (10 C.F.R. § 2.309(c)).

RULES OF PRACTICE: APPEAL BOARDS; PRECEDENCE

Although the Atomic Safety and Licensing Appeal Board (ALAB) was disbanded in 1991, its decisions still carry precedential value. *See, e.g., Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-99-24, 50 NRC 219, 222 n.3 (1999).*

RULES OF PRACTICE: CONTENTION (ADMISSIBILITY)

The Applicant is still in only the very early stages of construction, and is not slated to complete construction for a number of years. Consequently, information is not currently available (nor could it be) that would permit Intervenors to frame an admissible contention challenging specific aspects of construction. And for the same reason, Intervenors have not (nor could they have) carried their additional regulatory burden of presenting “facts or expert opinion” to support Contention 7.

RULES OF PRACTICE: LATE-FILED CONTENTIONS; MOTIONS TO REOPEN

Because Intervenors’ inability to satisfy our contention admissibility rules in this instance is due to factors beyond their control, we decline to require Intervenors to meet both our strict late-filing requirements and our even stricter reopening standards if Intervenors identify safety issues during the upcoming years of ongoing construction. Rather, if Intervenors file a new or amended Contention 7, with supporting materials, within 60 days after pertinent information (be it a supplement to the application or some other document, such as a Staff inspection report) first becomes available, then the contention will be deemed timely filed and Intervenors will be absolved of their obligation to satisfy the late-filing requirements of 10 C.F.R. § 2.309(c). Likewise, under those same circumstances, Intervenors need not satisfy our regulatory requirements for reopening the record.

RULES OF PRACTICE: INTERVENORS

Intervenors have an “ironclad obligation” to regularly and diligently search publicly available NRC or Applicant documents for information relevant to their contentions.

RULES OF PRACTICE: MOTIONS TO REOPEN

Reopening the record is an “extraordinary” action. 51 Fed. Reg. 19,535, 19,538 (May 30, 1986). Because proponents of motions seeking to reopen the record bear a “heavy burden” (*Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-756, 18 NRC 1340, 1344 (1983) (quoting *Kansas Gas and Electric Co.* (Wolf Creek Generating Station, Unit 1), ALAB-462, 7 NRC 320, 338 (1978))), a waiver of the “reopening” requirements seems the most equitable course of action to take in this particular case.

MEMORANDUM AND ORDER

In this decision, we address two requests. The first is the NRC Staff's request for interlocutory review¹ of a portion of the Atomic Safety and Licensing Board's June 27, 2008 Memorandum and Order (LBP-08-11).² Specifically, the Staff asks that we reverse the Board's imposition of two conditions on its dismissal of Contention 7 as filed collectively by Blue Ridge Environmental Defense League, Nuclear Watch South, and Nuclear Information and Resource Service (Intervenors). In Contention 7, Intervenors assert that Shaw Areva MOX Services, LLC (Applicant), in its application for a license to possess and use radioactive materials in its as-yet-unconstructed Mixed Oxide Fuel Fabrication (MOX) Facility, has not satisfied the requirement in 10 C.F.R. § 70.23(a)(8) that construction of the "principal structures, systems, and components" approved in the construction authorization proceeding be "completed in accordance with the application."³

The two Board-imposed conditions at issue are:

- (1) the Applicant will give the [Intervenors] at least 60 days written notice prior to asking the Staff to make the "completion" finding; and
- (2) the Staff, once asked by the Applicant, will provide [Intervenors] at least 30 days written notice prior to making its decision on the "completion" finding.⁴

In addition, the Board imposed the following potential sanction: failure by the Staff and/or the Applicant "to honor these conditions will be deemed to provide 'good cause' — calculated on a day per day basis — for delayed filing of any substantive contention [Intervenors] may bring on this subject."⁵ Intervenors oppose the Staff's interlocutory appeal, while the Applicant supports it.

The second request to us comes from Intervenors, who ask that, if we do not uphold the Board's ruling on Contention 7,⁶ then we admit the contention but

¹ NRC Staff's Request for Interlocutory Review of the Licensing Board's Decision in LBP-08-11 Concerning Contention (July 11, 2008) at 7 (Staff's Request).

² LBP-08-11, 67 NRC 460, 489-90.

³ Before the Applicant's license to possess and use radioactive material can be issued, the Staff must find that the Applicant has satisfied this requirement. The parties and the Board have referred to this finding as a "completion" finding.

⁴ LBP-08-11, 67 NRC at 490.

⁵ *Id.*

⁶ Intervenors oppose the Staff's request and ask us to affirm LBP-08-11. Intervenors' Response to NRC Staff's Request for Interlocutory Review of LBP-08-11 Concern[ing] Contention (July 17, 2008) at 11 (Intervenors' Response).

hold it in abeyance pending the Staff's issuance of its "completion" finding.⁷ The Staff and the Applicant oppose Intervenor's request.

In today's Order, we take the following actions. We grant the Staff's request for interlocutory review, find that the Board overstepped the bounds of its authority, and reverse the Board's imposition of conditions and a potential sanction. We also affirm the Board's dismissal of Contention 7. But we rule that if, within 60 days after the pertinent information that would support the framing of the contention first becomes available, Intervenor submit a particularized and otherwise admissible contention regarding the construction of the MOX facility, then the contention will be deemed timely without the need to satisfy the balancing test for late-filing requirements of 10 C.F.R. § 2.309(c) or our regulatory requirements in 10 C.F.R. § 2.326 for reopening the record if otherwise applicable.⁸

I. GENERAL BACKGROUND

In 2001, the Applicant (then Duke Cogema Stone and Webster) submitted a Construction Authorization Request to build the MOX facility. An intervenor sought and was granted a hearing on the Construction Authorization (a different adjudication from the one now before us).⁹ The Board in that proceeding admitted a number of contentions, but all were ultimately withdrawn or rejected. The Board terminated the Construction Authorization adjudication in July 2005.¹⁰ Four months earlier, the Staff had issued a Construction Authorization for the MOX facility. But that did not end the NRC's review of the proposed MOX facility or end the MOX hearing process. Early in the Construction Authorization proceeding, we had held that our "regulations contemplate *two* approvals — approval of construction (10 C.F.R. § 70.23(a)(7), (b)) and approval for operation (10 C.F.R. § 70.23(a)(8))."¹¹

⁷ *Id.* at 1. The implication of Intervenor's request is that Contention 7 (as revised) would challenge the Staff's "completion" finding. We emphasize that, to be admissible, a contention must challenge some aspect of the application at bar and cannot be directed at an action by the Staff. Final Rule: "Changes to Adjudicatory Process," 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

⁸ The peculiar procedural circumstances and the unusual nature of the equities favoring Intervenor combine to render this decision *sui generis*. As such, it should not be considered precedential.

⁹ *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403 (2001).

¹⁰ *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-05-15, 62 NRC 53 (2005).

¹¹ *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-7, 55 NRC 205, 217 (2002) (emphasis added).

In 2006, the Applicant sought the second NRC approval it needed, this one a license to operate the MOX facility, or as it is called in the proceeding now before us, a “possession-and-use” license. The Staff published a notice of opportunity for hearing in 2007.¹² At that time, the Applicant had not yet begun construction under the 2005 Construction Authorization. Intervenors sought a hearing on the possession-and-use license application. Thereafter, the Board admitted Intervenors’ Contention 4.¹³

Subsequently, in early 2008, the Staff announced its intention to issue a “possession and use” license to the Applicant *before* construction was complete, subject to a condition that the construction be completed in accordance with the requirements of section 70.23(a)(8).¹⁴ Prior to this announcement, Intervenors had understood that they “would have the opportunity to challenge the adequacy of the MOX facility’s construction at around the time the NRC Staff completed its safety review,”¹⁵ that is, about the time the Staff issued its “completion” finding. Thereafter, Intervenors submitted their late-filed Contention 7 — stating that the Applicant had not satisfactorily completed construction as required by section 70.23(a)(8) — after concluding that the Staff’s new approach would deprive them of a sufficient opportunity to defend their interests regarding safe construction of the MOX facility.

Eight weeks later, the Staff filed with the Board a “change of position,” stating that it would, after all, make the “completion” finding required in section 70.23(a)(8) *before* issuing a possession-and-use license.¹⁶ This change of position removed some, but not all, of the rationale underlying Contention 7.¹⁷ The Board and the parties spent much time at oral argument on Contention 7 discussing Intervenors’ remaining concerns and also how the Board should

¹²Notice of License Application for Possession and Use of Byproduct, Source, and Special Nuclear Materials for the MOX Facility, Aiken, SC, and Opportunity to Request a Hearing, 72 Fed. Reg. 12,204 (Mar. 15, 2007).

¹³Last year, the Board ruled that Contentions 3 and 4 were admissible, but delayed their actual admission pending further discussions with the parties on how the Board should manage the two contentions (given that the actual construction was so far in the future). LBP-07-14, 66 NRC 169, 206-12, 214 (2007). Later amending these rulings, the Board reaffirmed its admission of Contention 4 but dismissed Contention 3. LBP-08-11, 67 NRC at 475-76.

¹⁴LBP-08-11, 67 NRC at 473, referring to Transcript of Jan. 8, 2008, Oral Argument (Tr.) at 202, 230 (NRC Staff Counsel Martin).

¹⁵LBP-08-11, 67 NRC at 473. *See also* Intervenors’ Response to Atomic Safety and Licensing Board’s Memorandum and Order of January 16, 2008 Regarding Case Management Issues (Feb. 11, 2008) at 3-5 & n.1; Transcript of Apr. 9, 2008, Oral Argument at 467 (Farrar, J.).

¹⁶NRC Staff’s Notification of Change of Approach (Apr. 7, 2008).

¹⁷LBP-08-11, 67 NRC at 489.

manage Contention 7,¹⁸ given that construction would not be completed for another 4 to 8 years.¹⁹

II. BACKGROUND TO THE STAFF'S APPEAL

After hearing oral argument and reviewing the parties' briefs, the Board in LBP-08-11 dismissed Contention 7, but on the condition that the Staff and the Applicant notify Intervenors of their intent to take certain actions that were related to compliance with section 70.23(a)(8).²⁰ The Board further provided that, if those conditions were not satisfied, Intervenors would be given extra time within which to submit any revised contentions along the same lines as Contention 7.

The Staff, while recognizing our reluctance to consider interlocutory appeals,²¹ asserts that LBP-08-11 satisfies one of our two procedural criteria for such review under 10 C.F.R. § 2.341(f)(2),²² that is, that the challenged order "affects the basic structure of the proceeding in a pervasive or unusual manner."²³ Combining its procedural and substantive arguments, the Staff asks us to review and reverse the Board's ruling because it could result in (i) an indefinite extension of this proceeding's life, (ii) the Board's unauthorized supervision of the Staff's

¹⁸ Tr. at 445-521.

¹⁹ The actual period is uncertain. The Board refers to "a 6-year construction" period (LBP-08-11, 67 NRC at 489, 494; LBP-07-14, 66 NRC at 203 (referring to 2014)), the Applicant refers to 8 years (Shaw Areva MOX Services, LLC's Answer to NRC Staff's "Request for Interlocutory Review of the Licensing Board's Decision in LBP-08-11 Concerning Contention 7" (July 21, 2008) at 10 n.38 (Applicant's Answer)), and NRC Staff counsel implies a period of at least 4 years (Tr. at 450 (NRC Staff Counsel Jones)).

²⁰ As the Applicant correctly states, section 70.23 does not impose a requirement on an applicant to "request" a completion finding, or call for a single action, such as an inspection, on the part of the Staff that would, as the Board and Intervenors apparently contemplate, serve as a discrete starting point for revising Contention 7. Applicant's Answer at 6. Rather, as construction activities are undertaken, the Applicant is likely to take a variety of actions over a period of years that will be, similarly, considered and closed out by the Staff in multiple inspections and review activities. This type of review is not unusual in the licensing context, but it presents the need for a novel resolution of the appeal at hand. By contrast, with respect to combined licenses issued under 10 C.F.R. Part 52, the Atomic Energy Act itself prescribes a mechanism for interested persons to request a hearing as to the adequacy of construction after issuance of a combined license. Atomic Energy Act of 1954, as amended (AEA), § 189a(1)(B), 42 U.S.C. § 2239(a)(1)(B). *Cf.* AEA § 185b, 42 U.S.C. § 2235(b). *See generally* 10 C.F.R. § 52.103.

²¹ *See, e.g., Exelon Generation Co., LLC* (Early Site Permit for the Clinton ESP Site), CLI-04-31, 60 NRC 461, 465-66 (2004).

²² Staff's Request at 3-4.

²³ 10 C.F.R. § 2.341(f)(2)(ii).

nonadjudicatory activities, and (iii) the circumvention of regulations restricting late-filed contentions. The Applicant supports the Staff's Request.²⁴

Intervenors oppose the Staff's Request.²⁵ They do not address whether the Staff satisfies the standards for interlocutory review. Instead, they challenge the merits of the Staff's argument. Intervenors argue that the Board's action was a reasonable exercise of its authority to ensure that they have sufficient advance notice of any Staff action which would trigger revising the now broadly framed Contention 7.²⁶

Intervenors also make their own request, asking us to protect their right to file a revised Contention 7 if a contention-triggering event occurs after the record in this proceeding has closed.²⁷ More specifically, they ask that if we are unwilling to uphold the Board's approach to Contention 7,²⁸ then we alternatively admit Contention 7 but hold it in abeyance pending the Staff's "completion" finding under section 70.23(a)(8).²⁹

III. DISCUSSION

A. The Staff's Request for Interlocutory Review

We agree with the Staff that the Board's ruling on Contention 7 satisfies the interlocutory review standard in section 2.341(f)(2)(ii) in that the ruling "affects the basic structure of the proceeding in a pervasive or unusual manner." The Board's ruling derives from the unusual (perhaps unique) nature of this proceeding. During the earlier (construction) phase of this proceeding, we considered the requirements of the AEA, and determined that a "two-step" licensing (and hearing) process for a MOX facility was permissible.³⁰ We went on to approve a procedural scheme crafted specifically for this adjudication.³¹ As a result, this proceeding is likely to generate Board rulings that "affect[] the basic structure of the proceeding in a pervasive or unusual manner" — which is just what happened here. Indeed, in our earlier *MOX* adjudication, we embraced the "affects the basic structure of the proceeding" rationale to justify interlocutory

²⁴ Applicant's Answer at 4-11.

²⁵ Intervenors' Response at 7.

²⁶ *Id.* at 11.

²⁷ *Id.* at 1, 10-13.

²⁸ *Id.* at 11.

²⁹ *Id.* at 1.

³⁰ *Savannah River*, CLI-02-7, 55 NRC at 214-17.

³¹ *Id.* See Notice of Acceptance for Docketing of the Application, and Notice of Opportunity for a Hearing, on an Application for Authority to Construct a Mixed Oxide Fuel Fabrication Facility, 66 Fed. Reg. 19,994 (Apr. 18, 2001).

review of the “two-step licensing” issue.³² We similarly undertake interlocutory review here and turn now to the merits.

The Board overstepped its authority when it imposed the two conditions and the potential sanction for any failure by the Staff or Applicant to satisfy them. Although dismissing a contention with conditions differs in form from admitting a contention with conditions, the two are the same in substance. Both essentially hold a contention in suspended animation — the first by declaring it “dead, but then, maybe not,” and the latter by declaring it “alive, but then, maybe not.” Consequently, the Board contravened longstanding NRC precedent that “a licensing board is not authorized to admit conditionally, for *any* reason, a contention that falls short of meeting the specificity requirements” set forth in our procedural rules.³³ The Board must instead dismiss insufficient contentions outright.

The Board also acted without authority in instructing the Staff to give Intervenor notice of its intent to take certain administrative action (that is, issue a “completion” finding). Absent delegated authority, which is not present here, our licensing boards lack authority to direct the Staff’s nonadjudicatory actions.³⁴ Boards also lack authority to establish prospective sanctions for any failure by the Staff and/or the applicant to comply with the Board’s notice conditions. Any other conclusion would inappropriately permit the Board to do indirectly what it may not do directly,³⁵ that is, to avoid applying our regulations concerning late-filed contentions (10 C.F.R. § 2.309(c)).

B. Intervenor’s Request for Relief

Even though the Board’s remedy overstepped its authority, its concern that Intervenor’s hearing rights not be compromised in the unusual circumstances of this case is understandable. Perhaps recognizing the problematic nature of the Board’s remedy, Intervenor suggests a different one: that we admit Contention 7 and hold it in abeyance pending the Staff’s issuance of its “completion” finding

³² *Savannah River*, CLI-02-7, 55 NRC at 213-14.

³³ Staff’s Request at 4, quoting *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460, 467 (1982) (emphasis in original). Although the Atomic Safety and Licensing Appeal Board (ALAB) was disbanded in 1991, its decisions still carry precedential value. *See, e.g., Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-99-24, 50 NRC 219, 222 n.3 (1999).

³⁴ *See, e.g., Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), CLI-07-16, 65 NRC 371, 385 n.69 (2007); *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-80-12, 11 NRC 514, 516-17 (1980).

³⁵ *See generally International Paper Co. v. Ouellette*, 479 U.S. 481, 495 (1987).

under 10 C.F.R. § 70.23(a)(8).³⁶ Intervenors are concerned that, if the record of this proceeding has closed by the time the Staff issues that finding, then they would be prejudiced in the following two respects.

First, Intervenors would not receive specific notice of the Staff's "completion" finding — an action which, in Intervenors' opinion, would notify them of their need to timely file a revised Contention 7.³⁷ Intervenors assert that, without such notice, they would be left in the difficult position of spending up to the next 8 years searching haystacks for needles that, at any particular time, may or may not be there.³⁸

Second, even were they able to overcome the first disadvantage, they would still be entitled only to the opportunity "to request a discretionary determination that they meet an equitable standard for obtaining a hearing, under the Commission's standards for late-filed contentions and motions to reopen the record."³⁹ Regarding this second disadvantage, Intervenors observe that the right to seek party status under a heightened admissibility standard would place them at a distinct disadvantage compared with their existing status as intervenors.⁴⁰

As explained above, Contention 7 asserts that construction has not been completed satisfactorily in accordance with 10 C.F.R. § 70.23(a)(8). Based on a strict reading of our procedural regulations governing admissibility of contentions,⁴¹ we conclude that Contention 7 is inadmissible. Intervenors have not carried their regulatory burden to show that there currently exists a "genuine dispute"⁴² as to whether the Applicant can satisfy our regulatory requirement that construction of the "principal structures, systems, and components" approved in the construction authorization proceeding be "completed in accordance with the application."⁴³ The Applicant is still in only the very early stages of construction, and is not slated to complete construction for a number of years.⁴⁴ Consequently, information is not currently available (nor could it be) that would permit Intervenors to frame an

³⁶ Intervenors' Response at 1, 11.

³⁷ *Id.* at 8, 11-12.

³⁸ *See id.* at 12 (observing that they are at risk of being "unprotected by any requirement for the Staff to give them notice of its findings [and with] no reliable way to know when to even attempt to exercise their hearing rights on the issue" of compliance with section 70.23(a)(8)).

³⁹ *Id.* at 12.

⁴⁰ *Id.* at 11-12; Tr. at 458-60, 483, 488 (Intervenors Counsel Curran).

⁴¹ 10 C.F.R. § 2.309(f).

⁴² 10 C.F.R. § 2.309(f)(1)(vi).

⁴³ 10 C.F.R. § 70.23(a)(8).

⁴⁴ *See* note 19, *supra*.

admissible contention challenging specific aspects of construction.⁴⁵ And for the same reason, Intervenor's have not (nor could they have) carried their additional regulatory burden of presenting "facts or expert opinion" to support Contention 7.⁴⁶

But because Intervenor's inability to satisfy our contention admissibility rules in this instance is due to factors beyond their control, we decline to adopt the Staff's and the Applicant's position that we require Intervenor's to meet both our strict late-filing requirements and our even stricter reopening standards if Intervenor's identify safety issues during the upcoming years of ongoing construction. Rather, if Intervenor's file a new or amended Contention 7, with supporting materials, within 60 days after pertinent information (be it a supplement to the application or some other document, such as a Staff inspection report) first becomes available, then the contention will be deemed timely filed and Intervenor's will be absolved of their obligation to satisfy the late-filing requirements of 10 C.F.R. § 2.309(c).⁴⁷ Likewise, under those same circumstances, Intervenor's need not satisfy our regulatory requirements for reopening the record.⁴⁸

⁴⁵ Indeed, the Board and the parties recognize that such information might not become available until long after the only remaining contention in this adjudication, Contention 4, is resolved and the adjudicatory record closed. *See, e.g.*, Intervenor's Response at 11-12 (observing that "in advance of the Staff's safety findings under 10 C.F.R. § 70.23(a)(8), litigation . . . [might] conclude[] and the [Board] lose[] its jurisdiction").

⁴⁶ 10 C.F.R. § 2.309(f)(1)(v).

⁴⁷ This ruling is limited to the issue raised by Contention 7, and does not apply to any other late-filed contention, or late-filed petition to intervene. Any other such filing must conform to our late-filing requirements to be accepted by the Board for consideration.

Nor do we relieve Intervenor's of their "ironclad obligation" to regularly and diligently search publicly available NRC or Applicant documents for information relevant to their Contention 7. *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 386 (2002) ("Hearing petitioners have an 'ironclad obligation to examine the publicly available documentary material pertaining to the facility in question with sufficient care to enable the petitioner to uncover any information that could serve as the foundation for a specific contention'"), quoting Final Rule: "Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process," 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989).

In our view, Intervenor's overstate the burden that this "ironclad obligation" places upon them. For example, the NRC Staff maintains a Web page devoted exclusively to documents relevant to the MOX license application. This Web page (<http://www.nrc.gov/materials/fuel-cycle-fac/mox/meetings.html#upcoming>) contains hyperlinks to a variety of documents, including inspection reports, correspondence, the Staff's requests for additional information, summaries of recent public meetings, slide presentations used at those meetings, transcripts of earlier meetings, and announcements of upcoming meetings.

⁴⁸ Reopening the record is an "extraordinary" action. 51 Fed. Reg. 19,535, 19,538 (May 30, 1986). Because proponents of motions seeking to reopen the record bear a "heavy burden" (*Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-756, 18 NRC 1340, (Continued)

This may lead to one or more new or amended “Contention 7”-related contentions as construction proceeds and as fresh issues emerge.⁴⁹ Litigating contentions when they first arise is preferable, from the standpoint of efficient decisionmaking, to allowing them to fester until the Staff has finished its “completion” review. We remind Intervenors, moreover, that any new or amended contentions must satisfy the usual contention admissibility requirements set forth in 10 C.F.R. § 2.309(f)(1).⁵⁰

Finally, to ensure that this adjudication has a defined endpoint, we direct the NRC Staff to file a notice advising the Board (if the record is still open) or the Commission (if the record is closed) once all information relevant to the “completion” finding is before the agency.⁵¹ If the record is still open and if Intervenors have not offered one or more new or amended “Contention 7”-related contentions within the 60 days after such a notification, then we direct the Board to terminate the adjudication (unless at least one other contention remains pending).

IV. CONCLUSION

We *grant* the NRC Staff’s request for interlocutory appeal, *affirm* the Board’s dismissal of Contention 7 (although without prejudice to resubmission consistent with the terms of this decision), and *reverse* the Board’s imposition of conditions and a potential sanction.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 4th day of February 2009.

1344 (1983) (quoting *Kansas Gas and Electric Co.* (Wolf Creek Generating Station, Unit No. 1), ALAB-462, 7 NRC 320, 338 (1978)), a waiver of the “reopening” requirements seems the most equitable course of action to take in this particular case.

⁴⁹The Staff and Applicant may file Answers 25 days after service of the new contention(s), and Intervenors may then submit a Reply 7 days after service of the Answer(s). *See generally* 10 C.F.R. § 2.309(h)(1), (2).

⁵⁰Should Intervenors seek to file a new or amended contention, based on Contention 7, after the 60-day window has closed, such a request would be also subject to our late-filing rules in 10 C.F.R. § 2.309(c).

⁵¹This may take the form of a “Board Notification.” *See, e.g.*, Board Notification 2006-02, Supplemental Information Potentially Relevant and Material to Proceeding in the Matter of the U.S. Army and the Jefferson Proving Ground Site (Mar. 14, 2006) (ADAMS Accession No. ML060650231).

Commissioner Jaczko, Concurring

I would have preferred that Contention 7 be held in abeyance rather than being dismissed. That said, from a practical standpoint, I believe this Order diminishes significant differences between the two approaches. The one remaining concern I have is that, given the unique circumstances of this case, the appropriate timing for filing contentions will continue to be a challenge. Thus, if they have not already done so, I would encourage the intervenors to request to be placed on any service lists the technical staff at the NRC maintains in addition to the service list in this adjudication. Although this will only provide intervenors with documents prepared by the NRC Staff, it could provide additional assurance that, as this case moves forward, arguments about the timing of contentions do not overshadow the more important arguments about the substance of the contentions.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Dale E. Klein, Chairman
Gregory B. Jaczko
Peter B. Lyons
Kristine L. Svinicki

In the Matter of

**Docket Nos. 52-014-COL
52-015-COL**

**TENNESSEE VALLEY AUTHORITY
(Bellefonte Nuclear Power Plant,
Units 3 and 4)**

February 17, 2009

The Commission reverses the Board's admission of two contentions, and declines to accept the Board's suggestion that the Commission consider instituting a "low-level waste confidence" rulemaking proceeding.

RULES OF PRACTICE: REFERRALS AND CERTIFICATIONS

The Commission generally accepts Board certifications or referrals. However, the agency's rules provide that the Commission will review referred rulings only if the referral "raises significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding."

RULES OF PRACTICE: REFERRALS AND CERTIFICATIONS

Routine rulings on contention admissibility are usually not occasions to exercise our authority to step into ongoing Licensing Board proceedings and undertake interlocutory review. The Commission does, however, have authority to review Board rulings *sua sponte*, in the exercise of the Commission's inherent supervisory authority over NRC adjudications, regardless of whether the Commission accepts the referral. Absent the instant referral, the Commission might well have

declined to exercise that authority here. But with the issue already before the Commission, it considers the Board's rulings, and reverses the admission of both contentions.

RULES OF PRACTICE: LICENSING BOARD AUTHORITY

A board is free to decide this issue on a theory different from those argued by the litigants, *but only if* it explains the specific basis of its ruling and gives the litigants a chance to present arguments (and, where appropriate, evidence) regarding the Board's new theory.

RULES OF PRACTICE: WAIVER

Absent a waiver, parties are prohibited from collaterally attacking our regulations in an adjudication. But the Commission does not grant waivers where the circumstances on which the waiver's proponent relies are common to a large class of applicants or facilities.

WASTE CONFIDENCE RULEMAKING

A "waste confidence" rulemaking is not the appropriate instrument for resolving low-level radioactive waste issues, particularly issues of disposal.

The questions of the safety and environmental impacts of onsite low-level waste *storage* are, in the Commission's view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions. Indeed, a "low-level waste confidence" rule would not, if it followed the pattern set by the high-level waste confidence rule, alter any requirements to consider in the adjudicatory proceeding the environmental impacts of waste storage during the term of the license.

The Commission does not, however, rule out that, in a future COL proceeding, a petitioner could proffer an application-specific contention suitable for litigation on the subject of onsite storage of low-level radioactive waste.

MEMORANDUM AND ORDER

The Licensing Board has referred to us its ruling admitting two contentions (one safety-related and the other environmental) regarding low-level waste disposal. The Board has also suggested that we consider instituting a "low-level waste confidence" rulemaking proceeding. For the reasons set forth below, we reverse

the Board's admission of both contentions, and decline to accept the Board's rulemaking suggestion.

I. BACKGROUND

This proceeding stems from a combined license application (COLA) filed by the Tennessee Valley Authority (TVA) seeking authorization to construct and operate two new nuclear reactor units (proposed Units 3 and 4) at its Bellefonte facility in Alabama. Three organizations — the Southern Alliance for Clean Energy (SACE), the Blue Ridge Environmental Defense League (BREDL), and BREDL's Bellefonte Efficiency and Sustainability Team — jointly sought a hearing and the right to intervene.¹

On September 12, 2008, the Licensing Board issued LBP-08-16 which, among other things, found that SACE and BREDL (together, Intervenors) had demonstrated standing and had submitted four wholly or partially admissible contentions.² Based on these findings, the Board granted their petition to intervene and request for a hearing.

In proposed contention MISC-F, Intervenors raised the following argument regarding the absence of any explanation in the COLA as to how TVA intended to dispose safely of low-level waste from the two proposed units:

As of June 30, 2008, no facility in the United States will be licensed and able to accept for disposal, Class B, C or Greater-Than-[Class]-C radioactive waste from the Bellefonte nuclear and power reactors. The applicant fails to offer a viable plan for how to dispose of [this] so-called "low-level" radioactive waste generated in the course of operations, closure and post closure of Bellefonte 3 [and] 4.³

The Board found this "contention of omission" admissible insofar as it concerns Class B and C waste (though not Greater-Than-Class-C waste).⁴ The Board then concluded that the contention raised both safety and environmental issues, and therefore assigned it two separate designations — FSAR-D for the safety issue described above, and NEPA-G for the related environmental issue of whether

¹ Petition for Intervention and Request for Hearing by the Bellefonte Efficiency and Sustainability Team, the Blue Ridge Environmental Defense League and the Southern Alliance for Clean Energy (June 6, 2008) (Petition to Intervene).

² LBP-08-16, 68 NRC 361, 373-74 (2008). The Board also referred to us its ruling denying the admission of contention NEPA-M, which posits the need to provide an environmental impact assessment of the "carbon footprint" associated with the construction and authorization of the proposed facilities. That referral will be addressed in a separate opinion.

³ LBP-08-16, 68 NRC at 413.

⁴ *Id.*, 68 NRC at 414-15.

TVA had assessed the potential environmental impacts of keeping such waste onsite.⁵

The Board admitted Contention FSAR-D on the ground that it was “adequately supported and establishe[d] a genuine material dispute adequate to warrant further inquiry into . . . whether the TVA FSAR [Final Safety Analysis Report] . . . [had] failed to include necessary information concerning TVA plans for onsite management of Class B and C waste.”⁶ Similarly, the Board admitted Contention NEPA-G on the grounds that it was “material . . . and not precluded by Table S-3, 10 C.F.R. § 51.51.”⁷ In both rulings, the Board adopted the reasoning of another Board that had recently admitted a similar contention in the *North Anna* combined license (COL) proceeding.⁸ Finally, the Board referred its admissibility rulings on these two contentions to the Commission,⁹ with the suggestion that, because the low-level waste disposal issue was likely to arise in numerous other COL adjudications, the Commission might wish to consider addressing it in a “low-level waste confidence rulemaking.”¹⁰

As the Board initially observed, Intervenor’s low-level waste contentions are “footed in the recent closure of the Barnwell . . . low-level waste disposal facility to all waste other than that from” the Atlantic Compact states (Connecticut, New Jersey, and South Carolina).¹¹ Because the Bellefonte facility is in Alabama, this closure would preclude TVA from disposing its low-level waste at Barnwell and would force TVA to store that waste onsite instead — at least until another low-level waste disposal facility agrees to accept such waste from Alabama nuclear facilities.¹²

⁵ *Id.*, 68 NRC at 413-15.

⁶ *Id.*, 68 NRC at 414.

⁷ *Id.*

⁸ *Id.*, citing *Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 313-20 (2008) (*North Anna*). However, the Board in *North Anna* excluded the environmental portion of the contention on the ground that it had already been resolved in North Anna’s early site permit proceeding. *North Anna*, LBP-08-15, 68 NRC at 321-25.

⁹ LBP-08-16, 68 NRC at 413, 415.

¹⁰ *Id.*, 68 NRC at 415. The *North Anna* Board made the same suggestion. *North Anna*, LBP-08-15, 68 NRC at 325 n.155.

¹¹ LBP-08-16, 68 NRC at 413.

¹² See COLA, Part 3, Environmental Report (Rev. 1) § 3.5.3 (“Solid Radioactive Waste Management System”), p. 3.5-10 (Oct. 10, 2008) (ADAMS Accession No. ML083100442) (“The packaged [solid] waste is stored in the auxiliary and radwaste buildings until it is shipped off-site to a licensed disposal facility”). See also Transcript of Atomic Safety and Licensing Board Initial Prehearing Conference at 197 (July 30, 2008) (Tr.) (Mr. Franz, TVA’s counsel: “As we clearly state in Section 3.5.3 of our Environmental Report, we don’t plan to dispose of waste on-site. Instead, we plan to store it temporarily and then ship it offsite for disposal”).

II. DISCUSSION

Traditionally, we have accepted Board certifications or referrals.¹³ However, our rules provide that we will review referred rulings only if the referral “raises significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding.”¹⁴ As discussed below, the Board’s referred rulings, and its recommendation that the Commission initiate rulemaking, fail to satisfy this test.

A. The Board’s Contention Admissibility Rulings

Routine rulings on contention admissibility “are usually not occasions to exercise our authority to step into ongoing Licensing Board proceedings and undertake interlocutory review.”¹⁵ We do, however, have authority to review Board rulings *sua sponte*, in the exercise of our inherent supervisory authority over NRC adjudications,¹⁶ regardless of whether we accept the referral. Absent the instant referral, we might well have declined to exercise that authority here. But with the issue already before us, we consider the Board’s rulings, and reverse the admission of both contentions.

1. Contention FSAR-D

The *only* regulatory ground on which Intervenors based Contention FSAR-D was Part 61 of our regulations,¹⁷ which concerns land disposal of radioactive

¹³ *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-21, 62 NRC 538, 539 (2005).

¹⁴ 10 C.F.R. § 2.341(f)(1). *See* 10 C.F.R. § 2.323(f) (the presiding officer may refer a ruling to the Commission if, in the judgment of the presiding officer, “prompt decision is necessary to prevent detriment to the public interest or unusual delay or expense”).

¹⁵ *LES*, CLI-05-21, 62 NRC at 539, citing *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-04-31, 60 NRC 461, 466 (2004).

¹⁶ *See, e.g., Clinton*, CLI-04-31, 60 NRC at 466; *Safety Light Corp.* (Bloomsburg Site Decontamination and License Renewal Denials), CLI-92-13, 36 NRC 79, 85 (1992) (“Even in the absence of a petition for review, the Commission retains its supervisory power over adjudications to step in at any stage of a proceeding and decide a matter itself”). *See also Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-9, 40 NRC 1, 7 n.1 (1994); *Ohio Edison Co.* (Perry Nuclear Power Plant, Unit 1), CLI-91-15, 34 NRC 269, 271 (1991), *reconsideration denied*, CLI-92-6, 35 NRC 86 (1992).

¹⁷ 10 C.F.R. Part 61.

waste.¹⁸ The Board expressly, and correctly, rejected this argument. Part 61 is inapplicable here because it applies only to land disposal facilities that *receive* waste from others, not to onsite facilities such as Bellefonte's where the licensee intends to *store* its own low-level radioactive waste.¹⁹

But then the Board concluded, without elaboration, that the intervenors' safety contention was nonetheless sufficiently supported "to warrant further inquiry into the safety-related matter of whether the TVA FSAR [Final Safety Analysis Report] has failed to include necessary information concerning TVA plans for onsite management of Class B and C waste."²⁰ In support, the Board simply cited a multifaceted discussion of a similar contention in the *North Anna* decision, *supra*.²¹ The *North Anna* Board had rejected the same Part 61 argument, but had admitted the intervenors' low-level waste contention on other grounds.²² We cannot tell from the *Bellefonte* decision which of the remaining grounds the *Bellefonte* Board was relying upon.

Although the *Bellefonte* Board was free to view intervenors' support for Contention FSAR-D in the light most favorable to intervenors, the Board was not free to ignore the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1).²³ Because intervenors failed even to raise any of the grounds on which the *Bellefonte* Board relied in admitting the contention, intervenors perforce failed to satisfy the admissibility requirements. The Board should therefore have found Contention FSAR-D inadmissible, and its failure to do so constitutes reversible error.²⁴

¹⁸ Petition to Intervene at 65-69; Reply of the Blue Ridge Environmental Defense [*sic*] League, Its Chapter Bellefonte Efficiency and Sustainability Team and the Southern Alliance for Clean Energy to the NRC Staff Answer to Petition for Intervention and the Applicant's Answer Opposing Petition to Intervene, both dated July 1, 2008 (July 8, 2008), at 26-30 (Intervenors Reply); Tr. at 194-210. Intervenors argue that "extended on site [*sic*] storage becomes de facto onsite disposal." Petition to Intervene at 67.

¹⁹ 10 C.F.R. § 61.1(a). See also *North Anna*, LBP-08-15, 68 NRC at 317.

²⁰ LBP-08-16, 68 NRC at 414.

²¹ *Id.*, citing *North Anna*, LBP-08-15, 68 NRC at 315-20.

²² *North Anna*, LBP-08-15, 68 NRC at 317.

²³ See, e.g., *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991).

²⁴ Separately, the *Bellefonte* Board was free to decide this issue on a theory different from those argued by the litigants, *but only if* it explained the specific basis of its ruling and gave the litigants a chance to present arguments (and, where appropriate, evidence) regarding the Board's new theory. *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 55-56 (1978), quoting *Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 354 (1975). This the *Bellefonte* Board did not do.

Nor is it at all clear that the bases for the *North Anna* Board's ruling (on which the *Bellefonte* Board relied) are universally applicable to the *Bellefonte* case. For instance, the *North Anna* Board relied on language in both the applicant's Final Safety Analysis Report and its Design Control Document — two

(Continued)

2. *Contention NEPA-G*

Intervenors argued that the COLA improperly failed to consider the environmental consequences of onsite storage of Class-B and -C waste.²⁵ TVA and the Staff responded that the Intervenors' argument constituted a collateral attack on a Commission regulation — 10 C.F.R. § 51.51(b), Table S-3.²⁶ TVA further asserted that its COLA adequately addressed the issue of low-level radioactive waste management.²⁷ And the Staff further argued that Intervenors had not shown that the contention was material to the proceeding, nor had they provided expert opinion or references to support their position.²⁸

The Board provided minimal explanation for its decision to admit Contention NEPA-G, stating merely that “for the reasons suggested by the *North Anna COL* Board, . . . this issue [is] material to this proceeding and not precluded by Table S-3, 10 C.F.R. § 51.51.”²⁹ But here, the referenced portion of the *North Anna* decision is much shorter, and the cited rationale is obvious.

Specifically, the *North Anna* Board had reasoned that (i) a COLA's Environmental Report must address the environmental costs of managing low-level

documents that are application-specific (rather than generic) in nature. *North Anna*, 68 NRC at 318-19. Moreover, North Anna's radwaste building contains sufficient storage “space for a 6-month volume of packaged waste” (*North Anna*, 68 NRC at 318, quoting Design Control Document § 11.4.1), while Bellefonte's designed storage capacity is sufficient to store 2 years' worth of Class-B and -C radwaste (Tr. at 197-98, 202). Finally, the *North Anna* Board points specifically to the applicant's acknowledgment that, absent an offsite low-level radioactive waste land disposal facility, the applicant “may need to construct additional waste storage capacity, develop an overall site waste management plan, or both.” *North Anna*, 68 NRC at 319. TVA, by contrast, made no such acknowledgment. See TVA Answer at 68-72; Tr. at 196-204.

²⁵ Petition to Intervene at 67 (the entirety of Intervenors' argument):

The issue of radioactive waste management is barely addressed in TVA's COL application. A short section (3.5) of the Environment Report on page 3.5-1 simply describes the generation of radioactive waste during operations and states that the systems are:

designed to minimize releases from reactor operations to values as low as reasonably achievable (ALARA). These systems are designed and maintained to meet the requirements of 10 CFR Part 20 and 10 CFR 50, Appendix I.

The COLA provides little in terms of the ongoing on-site management and potential environmental impact at the reactor site of keeping so-called “low-level” waste from operations on the site of generation.

²⁶ Applicant's Answer Opposing Petition to Intervene (July 1, 2008), at 69 (TVA Answer); NRC Staff Answer To “Petition for Intervention and Request for Hearing by the Bellefonte Efficiency and Sustainability Team, the Blue Ridge Environmental Defense League and the Southern Alliance for Clean Energy” (July 1, 2008), at 71 (NRC Staff Answer); Tr. 199 (TVA), 204-25 (NRC Staff).

²⁷ TVA Answer at 69 n.308.

²⁸ NRC Staff Answer at 71.

²⁹ LBP-08-16, 68 NRC at 414, citing *North Anna*, 68 NRC at 316-17.

wastes, (ii) the analysis must be based on Table S-3,³⁰ (iii) Table S-3 “may be supplemented by a discussion of the environmental significance of the data set forth in the table as weighed in the analysis for the proposed facility,”³¹ (iv) the table “does not include health effects from the effluents described in the table,”³² (v) the health effects “may be the subject of litigation in the individual licensing proceedings,”³³ and (vi) “the increased need for interim storage of [low-level radioactive waste] because of the closure of the Barnwell facility implicates the health of plant employees, an issue that Table S-3 does not resolve.”³⁴

But the *Bellefonte* Board’s adoption of this rationale from *North Anna* suffers from a flaw. As the NRC Staff and TVA pointed out to the Board,³⁵ and as the Intervenor themselves conceded,³⁶ Contention NEPA-G constitutes a collateral attack upon Table S-3. Absent a waiver, parties are prohibited from collaterally attacking our regulations in an adjudication.³⁷ Intervenor did not seek such a waiver. Therefore, under our rules, the Board should not have admitted the contention.³⁸

³⁰ Table S-3 assumes that solid, low-level waste from reactors will be disposed of through shallow land burial, and concludes that this kind of disposal will not result in the release of any “significant effluent to the environment.” 10 C.F.R. § 51.51(b), Table S-3.

³¹ *North Anna*, 68 NRC at 316, citing 10 C.F.R. § 51.51(a).

³² *Id.*, 68 NRC at 316, citing 10 C.F.R. § 51.51(b), n.1 to Table S-3. *See also* Final Rule: “Licensing and Regulatory Policy and Procedures for Environmental Protection: Uranium Fuel Cycle Impacts from Spent Fuel Reprocessing and Radioactive Waste Management,” 44 Fed. Reg. 45,362, 45,364 & nn.5, 6 (Aug. 2, 1979).

³³ *North Anna*, 68 NRC at 316, citing 10 C.F.R. § 51.51(b), n.1 to Table S-3.

³⁴ *Id.*, 68 NRC at 316.

³⁵ NRC Staff Answer at 71; TVA Answer at 69.

³⁶ Intervenor Reply at 26 n.13.

³⁷ 10 C.F.R. § 2.335(a), (b).

³⁸ Even had Intervenor sought a waiver, they would not have qualified for one. We do not grant waivers where the circumstances on which the waiver’s proponent relies are common to “a large class of applicants or facilities.” *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-88-10, 28 NRC 573, 596, 597 (1988). *See also* *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560 (2005). Here, Bellefonte shares the same circumstances (lack of a disposal facility for Class B and C waste) with eighty-nine other nuclear power plants in twenty-seven of the thirty-one states hosting such plants. *See generally* NRC News Release 08-103, NRC Updates Guidance to Licensees for Extended Storage of Low-Level Radioactive Waste (May 29, 2008), at 1 (ADAMS Accession No. ML081500171). As a result, the Bellefonte site now finds itself in the company of all but eight of the nation’s sixty-five nuclear power plant sites.

B. The Board's Suggestion That We Initiate a "Low-Level Waste Confidence" Rulemaking Proceeding

In addition to referring to us its rulings on Contentions FSAR-D and NEPA-G, the Board also suggested that we consider a "low-level waste confidence" rulemaking, related to the management and disposal of low-level radioactive waste, and, in particular, those issues that, according to the Board, "are likely to arise in multiple cases." As an example, the Board cited the question of whether facilities for the land disposal of Class B and C waste are likely to become available before the reactors that are the subject of pending COL applications are expected to begin operation (provided that pending COLAs be approved).³⁹ We decline the Board's suggestion.

A "waste confidence" rulemaking is not the appropriate instrument for resolving low-level radioactive waste issues, particularly issues of disposal. This agency has acknowledged that the future availability of disposal capacity for low-level radioactive waste remains highly uncertain. In comments to the General Accounting Office (now the Government Accountability Office) (GAO) on a draft GAO report concerning low-level radioactive waste disposal activities, the Executive Director for Operations noted that the current system for low-level radioactive waste disposal "is not generally considered reliable (i.e., generators do not have good assurance that disposal will be available to them over the next 5 to 10 years)."⁴⁰

GAO has raised several alternatives for dealing with disposal of Class B and C waste. The ultimate resolution of issues concerning disposal may require changes to existing statutory mechanisms for siting low-level waste disposal facilities.⁴¹ To the extent that the disposal issue requires statutory changes if it is to be addressed successfully, the rulemaking recommended by the Board would not serve the purpose of resolving low-level waste disposal issues.

The questions of the safety and environmental impacts of onsite low-level waste *storage* are, in our view, largely site- and design-specific, and appro-

³⁹ LBP-08-16, 68 NRC at 415.

⁴⁰ "Comments on Draft GAO-04-604, 'Low-Level Radioactive Waste: Disposal Availability Adequate in Short Term, but Oversight Needed to Identify Any Future Shortfalls,'" at 2 (undated) (ADAMS Accession No. ML041260357), appended to letter from Luis A. Reyes to Ms. Robin M. Nazzaro (May 25, 2004) (ADAMS Accession No. ML041260340). *See also* SECY-08-0124, Annual Review of the Need for Rulemaking and/or Regulatory Guidance on Low-Level Radioactive Waste Storage (Aug. 29, 2008), at 2 (ADAMS Accession No. ML0819705030); "Strategic Assessment of the U.S. Nuclear Regulatory Commission's Low-Level Radioactive Waste Regulatory Program" (Strategic Assessment) at 6 (ADAMS Accession No. ML071350350), appended to SECY-07-0180, Strategic Assessment of Low-Level Radioactive Waste Regulatory Program (Oct. 17, 2007) (ADAMS Accession No. ML0713502990).

⁴¹ *See* Strategic Assessment at 5.

privately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions.⁴² Indeed, a “low-level waste confidence” rule would not, if it followed the pattern set by the high-level waste confidence rule, alter any requirements to consider in the adjudicatory proceeding the environmental impacts of waste storage during the term of the license.⁴³

Pursuant to 2004 Commission direction, the Staff annually assesses the need for rulemaking or guidance for long-term storage of low-level waste in general.⁴⁴ To date, the Staff, and we, consider rulemaking to address long-term storage unnecessary, because the current regulatory framework continues to provide an adequate basis for regulation of stored radioactive material, including low-level waste.⁴⁵ However, the Staff has identified a need to review and update implementing guidance (for all affected licensees, including materials and power reactor licensees), and has undertaken a significant effort to do so.⁴⁶ That generic effort is ongoing, and we will continue to assess the Staff’s recommendations with respect to the necessity of rulemaking in this area, via its annual status reports. In this vein, we note particularly that the Staff has committed to “[r]eport to the Commission in 2009 . . . any concerns and challenges associated with the loss

⁴² While we do not find that Intervenor here proffered an admissible contention, we do not rule out that, in a future COL proceeding, a petitioner could proffer an application-specific contention suitable for litigation on the subject of onsite storage of low-level radioactive waste. As a general matter, we note that power reactor licensees have been safely storing and managing low-level waste onsite for years under NRC oversight, and the Staff has not identified any immediate safety problems or concerns with such storage. Given the existing regulatory scheme, together with current and updated guidance (*see infra*), we do not expect that the consideration of management and storage issues in individual COL proceedings would constitute a significant burden.

⁴³ *Cf.* 10 C.F.R. § 51.23 (regarding litigability of the environmental effects of onsite spent fuel storage).

⁴⁴ Staff Requirements — SECY-03-0223 — Rulemaking Plan: Assured Isolation Facilities (Jan. 29, 2004) (ADAMS Accession No. ML040290568).

⁴⁵ *See* SECY-06-0193, “Annual Review of the Need for Rulemaking and/or Regulatory Guidance on Low-Level Radioactive Waste Storage” (Sept. 6, 2006), at 1-2 (ADAMS Accession No. ML061730187).

⁴⁶ *See* SECY-08-0124 at 3 (“staff plans to evaluate the need for additional supplemental guidance in the form of a NUREG”); Strategic Assessment at 5 (“circumstances suggest or require certain actions by the NRC, ranging from updating storage guidance (because many generators may no longer have a disposal option for Class B/C waste beginning in mid-2008), to developing licensing criteria for GTCC [Greater Than Class C] facilities, to developing guidance for LAW [low activity waste] disposal”). With respect to reactor licensees, the Staff recently issued a Regulatory Issue Summary to clarify its current position regarding the long-term, interim storage of low-level radioactive waste at facilities licensed under 10 C.F.R. Part 50. NRC Regulatory Issue Summary 2008-32, “Interim Low Level Radioactive Waste Storage at Reactor Sites” (Dec. 30, 2008) (ADAMS Accession No. ML082190768).

of access to disposal at Barnwell that have been identified by licensees, State regulators, inspectors or other stakeholders.’’⁴⁷

Commissioner Jaczko’s dissent states that “[t]his is a complicated matter” We agree. Nevertheless, low-level waste disposal (as both the *Bellefonte* and *North Anna* Boards recognize) is irrelevant to adjudicatory proceedings and may require legislative action, while low-level waste storage is properly part of such proceedings (just as high-level waste storage is under the High-Level Waste Confidence rule), and the agency is already considering annually whether any more guidance or rules on storage are needed.

III. CONCLUSION

For the reasons set forth above, we *reverse* the Board’s admission of Contentions FSAR-D and NEPA-G, and *decline* to accept the Board’s suggestion that we conduct a “low-level waste confidence” rulemaking proceeding.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 17th day of February 2009.

⁴⁷ SECY-08-0124 at 5. The Staff notes that this status report will include a summary of Staff initiatives to address and mitigate identified concerns or challenges. *Id.*

Commissioner Gregory B. Jaczko, Dissenting

I offer a separate dissenting opinion because I believe the Commission should have requested briefs from the parties on this issue. This is a complicated matter and one in which I believe the Board was seeking Commission guidance that this Order does not provide. As it currently stands most of the states where new reactor license applicants are hoping to site new reactors do not currently have a path for disposal of Class B and Class C waste. The implications of a lack of disposal options for new and operating reactors raise complex issues. Moreover, a review of the attempts to deal with these complications reveals the agency's clear struggle with the appropriate regulatory approach to this matter. It is precisely because of the complex and potentially recurring nature of this issue that the Board sought Commission guidance, and it is precisely for these same reasons that I believe an ultimate decision would have benefited from the parties' views on this matter.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Dale E. Klein, Chairman
Gregory B. Jaczko
Peter B. Lyons
Kristine L. Svinicki

In the Matter of

Docket No. 52-033-COL

DETROIT EDISON COMPANY
(Fermi Nuclear Power Plant,
Unit 3)

February 17, 2009

RULES OF PRACTICE: EXTENSION OF TIME

Difficulties in coordinating action among volunteers and large public interest organizations and the challenge of simultaneously preparing for an environmental scoping meeting while drafting contentions did not constitute the good cause necessary to justify an extension of the deadline to file hearing requests or petitions to intervene, particularly when Petitioners will have had nearly 5 months to review the application by that deadline. 10 C.F.R. § 2.307(a).

RULES OF PRACTICE: INTERVENOR FUNDING

Because Congress has explicitly prohibited the NRC from paying the expenses of or otherwise compensating intervening in its proceedings, the Commission could not grant Petitioners funds to prepare requests for access to safeguards information or sensitive unclassified nonsafeguards information.

RULES OF PRACTICE: FEE WAIVER

Even if the Commission could waive the application fee for access to safeguards

information, the mere fact that Petitioners were public interest organizations provides no special reason for departing from well-established NRC practice.

RULES OF PRACTICE: SUPPLEMENTAL INFORMATION

Petitioners' request for additional information on redacted portions of the combined license application is denied because the public record indicates the nature of the redacted information.

RULES OF PRACTICE: EXTENSION OF TIME

Although a 10-day deadline from the date of the hearing notice is reasonable for filing requests for access to safeguards information or sensitive, unclassified, nonsafeguards information, the Commission recognizes that the practice is a new one with which many petitioners may be unfamiliar. This along with Petitioners' companion requests for additional resources to support their requests for such information justify a 10-day extension to request access to the information.

RULES OF PRACTICE: TIMING OF COMBINED LICENSE PROCEEDINGS

The Commission policy of permitting the conduct of an adjudicatory proceeding on a combined license that references a design certification that the Commission has not approved does not violate the Atomic Energy Act of 1954, 10 C.F.R. Part 52, or judicial decisions.

MEMORANDUM AND ORDER

On January 18, 2009, the Michigan Chapter of the Sierra Club, Beyond Nuclear, Citizens for Alternatives to Chemical Contamination, Citizens Resistance at Fermi 2, Coalition for a Nuclear-Free Great Lakes, Don't Waste Michigan, Toledo Coalition for Safe Energy, and several individuals (collectively, "Petitioners"), e-mailed an "Objection to 'nonpublic' elements of Fermi 3 [combined license application ("COLA')]" ("Objection") to the Hearing Docket.¹ The Objection

¹ The Petitioners failed to file this Objection in compliance with 10 C.F.R. § 2.302, which requires all filings in adjudicatory proceedings to be sent through the NRC's E-Filing system. The electronic filing requirements were outlined in the notice of hearing. All future filings in this proceeding must comply with this requirement.

contained five requests, including a request to extend the contention filing deadline by 90 days. The Applicant filed a response opposing an extension of the contention filing deadline. As explained below, the Commission denies four of Petitioners' requests and grants one.

As noted above, Petitioners ask the Commission to extend the March 9, 2009, deadline for filing hearing requests, petitions to intervene, and contentions by 90 days. Under 10 C.F.R. § 2.307(a), the Commission or presiding officer may extend a time limit upon a showing of good cause. Here, Petitioners argue that both the difficulties in coordinating action among volunteers and large public interest organizations and the challenge of simultaneously preparing for an environmental scoping meeting on the COLA while drafting contentions justify the extension. But many, if not most, groups that seek to intervene in NRC proceedings are organizations that rely on volunteers and must draft contentions while also balancing other obligations. Consequently, Petitioners have shown no special circumstances amounting to good cause for an extension.

Moreover, the license application at issue has been a matter of public record since October 17, 2008, when the NRC Staff published a notice in the *Federal Register* stating that the application was available on the NRC's website.² As a result, by the time the March 9, 2009, deadline to file contentions arrives, Petitioners will have had nearly 5 months to review the application and prepare contentions.

Next, Petitioners argue that they must consult with experts to craft their requests for access to safeguards information ("SGI") and sensitive, unclassified, nonsafeguards information ("SUNSI") and therefore request "\$20,000 authorization from the agency per category of documentation concealed." Congress has explicitly prohibited the NRC from paying the expenses of or otherwise compensating intervening in its proceedings.³ Thus, the Commission cannot grant this request.

In addition, Petitioners ask for "a blanket waiver of the \$191 fee required for seeking access to these SUNSI and SGI documents." To be clear, the order only assesses the fee for requests for access to SGI.⁴ The Commission uses the access fee to pay the costs it incurs in determining whether the individual should be granted access to SGI.⁵ These costs include a fee to the Federal Bureau of Investigation as part of the background check. The statutory ban on paying the expenses of or otherwise compensating intervening in the Commission's proceedings may preclude the Commission from granting this request. But, the

² Detroit Edison Company; Notice of Receipt and Availability of Application for a Combined License, 73 Fed. Reg. 61,916 (Oct. 17, 2008).

³ Pub. L. No. 102-377, Title V, § 502, 106 Stat. 1342 (Oct. 2, 1992), 5 U.S.C. § 504 note.

⁴ 74 Fed. Reg. at 838.

⁵ See 10 C.F.R. § 73.57(d)(3)(ii).

Commission need not reach that issue. Even assuming the Commission could grant this request, Petitioners have not presented a compelling reason, unique to their circumstances, to do so. Petitioners claim that because they are mainly nonprofit, public interest groups, the Commission should waive the fee. But many entities that petition to intervene in NRC proceedings are public interest groups. Petitioners' argument shows no special reason for departing from well-established NRC practice and granting a waiver in this case.

Next, Petitioners demand "urgent action to provide [Petitioners] a list of the categories of documents kept secret under SUNSI and SGI categorizations. [Petitioners] further request a document-by-document itemization and summarization, even if in redacted form." Petitioners' open-ended demand does not specify which particular documents they would like the NRC to categorize, itemize, and summarize. Nonetheless, earlier in the Request, Petitioners complain that the Commission's prior order providing mechanisms to access SUNSI and SGI "reinforces strictures against public access to portions of the COLA." Thus, the Commission interprets this demand as a request for information concerning redacted portions of the application. This interpretation is reasonable because the proper focus of any contention should be the application.⁶ In this case, the only redacted portion of the application is Part 8, the security plan, which contains SGI. Section 13.6.1 of the NRC's Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants (NUREG-0800) describes the type of information the NRC Staff expects the applicant to provide in the COLA's security plan.⁷ In short, the public record already indicates the nature of the redacted information. There is no basis or justification for Petitioners' request.

Finally, Petitioners object to the provision in the NRC's January 8, 2009 hearing notice and order requiring potential parties to submit requests for access to SGI and SUNSI within 10 days — that is, by January 18, 2009.⁸ Early in 2008, the Commission amended its regulations to authorize the Secretary of the Commission to issue orders establishing procedures and timelines for potential parties to obtain access to SGI or SUNSI when seeking to intervene in NRC adjudicatory proceedings in which SGI or SUNSI may be involved.⁹ At the same time, the Commission approved procedures to be imposed by the Secretary that

⁶ See 10 C.F.R. § 2.309(f)(1)(vi).

⁷ NUREG-0800 is available on the NRC's public website at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0800/>.

⁸ Detroit Edison Company; Notice of Hearing, and Opportunity to Petition for Leave to Intervene and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation on a Combined License for Fermi 3, 74 Fed. Reg. 836 (Jan. 8, 2009).

⁹ See Delegated Authority to Order Use of Procedures for Access to Certain Sensitive Unclassified Information, 73 Fed. Reg. 10,978, 10,979 (Feb. 29, 2008).

include a requirement to submit a request for access to SGI or SUNSI within 10 days of the issuance of the notice of opportunity for hearing.¹⁰ The Commission approved these procedures after providing an opportunity for public comment.¹¹ The Commission remains convinced that 10 days from the publication of the *Federal Register* notice is a reasonable amount of time to request access to SUNSI or SGI, given the public availability of applications well before the 10-day period starts and the relatively minimal effort necessary to file a request for SUNSI or SGI.

Nonetheless, although the Commission has included the 10-day deadline in recent hearing notices,¹² the Commission recognizes that the practice is a new one, with which many petitioners may be unfamiliar. Moreover, Petitioners' Objection included a series of requests seeking resources to assist the Petitioners in preparing their requests for access to SUNSI or SGI. They filed a request for funds to hire experts, a request to waive the SGI access fee, and a request for more detail on the type of information redacted in the COLA. As explained above, the Commission finds no merit in any of these requests, but believes that Petitioners in this case made them in good faith. In these circumstances, the Commission exercises its discretion to grant Petitioners a 10-day extension from the date of this Order to file requests for access to SUNSI or SGI or both. The Commission will not so readily excuse noncompliance with the 10-day deadline in future proceedings, however.

In addition to their Objection, Petitioners have submitted a "Request to Suspend Adjudication of Fermi 3 COLA Pending Completion of [Economic Simplified Boiling-Water Reactor ("ESBWR")] Design Certification Process" ("Request"). The Applicant has also opposed this Request. As the Request notes, the Commission recently issued a policy statement indicating that a COLA may reference a docketed design certification that the Commission has not yet approved.¹³ The policy statement also notes that an Atomic Safety and Licensing Board should hold any contentions on the design filed in the COLA adjudication

¹⁰ Procedures to Allow Potential Intervenors to Gain Access to Relevant Records That Contain Sensitive Unclassified Non-Safeguards Information or Safeguards Information (Feb. 29, 2008) (ADAMS Accession No. ML080380626).

¹¹ See Interlocutory Review of Rulings on Requests by Potential Parties for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information; Reopening of Public Comment Period and Notice of Availability of Proposed Procedures for Comment, 72 Fed. Reg. 43,569, 43,570 (Aug. 6, 2007) (announcing the availability of proposed access procedures for public comment).

¹² E.g., Entergy Operations, Inc. et al.; Notice of Hearing and Opportunity to Petition for Leave to Intervene and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation on a Combined License for the Grand Gulf Unit 3, 73 Fed. Reg. 37,511 (July 1, 2008).

¹³ Conduct of New Reactor Licensing Proceedings; Final Policy Statement, 73 Fed. Reg. 20,963, 20,972-73 (Apr. 17, 2008).

in abeyance, pending the results of the rulemaking proceeding on the design certification.¹⁴ The Request acknowledges that the Commission recently applied this policy in *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1 (2008), but asks the Commission to repudiate or revoke its policy in this case and suspend this proceeding until the completion of the ESBWR design certification process.

In Petitioners' view, the Commission's policy violates the Atomic Energy Act of 1954, as amended ("AEA"), 10 C.F.R. Part 52, and case law interpreting the AEA. Petitioners do not indicate precisely how the policy statement and the *Shearon Harris* Order violate the AEA, 10 C.F.R. Part 52, or judicial precedent. In fact, 10 C.F.R. § 52.55(c) explicitly envisions concurrent proceedings on a design certification rule and a COLA. It specifically permits an applicant to reference a design certification that the Commission has docketed but not granted, but provides that in such cases the applicant proceeds "at its own risk."

In addition, Petitioners assert that because the COLA references the ESBWR, the NRC's notice of hearing on the COLA violates the Administrative Procedure Act's notice requirement.¹⁵ Petitioners claim that the NRC cannot provide adequate notice of the hearing because the COLA does not reference the content of the final ESBWR. Thus, they allege that the public will be unable to participate meaningfully in these proceedings because the ESBWR design may change during the rulemaking process and thereby alter the COLA proceedings. Petitioners have had adequate notice of the COLA and the documents it references. The NRC has published the design details of the ESBWR on its website, and the public has a full opportunity to participate in the rulemaking proceeding on that design certification. While potential changes to the ESBWR may impact the COLA proceedings, the possibility of significant change in a facility design is inherent in COLA (or any other licensing) proceedings. Indeed, the Commission's rules of practice provide opportunities to file new or amended contentions to address such developments when they arise.¹⁶ Petitioners will be able to participate meaningfully in these proceedings. Thus, the Commission, consistent with its decision in *Shearon Harris*, declines to suspend these proceedings pending the outcome of the ESBWR design certification process.

In his dissent, Commissioner Jaczko indicates that providing Petitioners an extension to file Petitions to Intervene and a further extension to seek access to SGI and SUNSI would have no impact on the schedule for reviewing the ESBWR design. But absent a showing of good cause by Petitioners as to the necessity of these extensions, the lack of impact on the review schedule is not compelling.

¹⁴ *Id.*

¹⁵ 5 U.S.C. § 554.

¹⁶ *See* 10 C.F.R. § 2.309(c) and (f)(2).

Therefore, the Commission grants these Petitioners a 10-day extension from the date of this Order to the deadline for filing requests for access to SGI and SUNSI. The Commission denies Petitioners' remaining requests.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 17th day of February 2009.

Commissioner Gregory B. Jaczko, Dissenting, in Part

I agree with my colleagues that the interested Petitioners in this matter should be afforded additional time for seeking access to Sensitive Unclassified Non-Safeguards Information (SUNSI) and Safeguards Information (SGI). But, I would have provided the organizations more time for both seeking access to SUNSI and for filing contentions in this matter. The application at issue references the Economic Simplified Boiling Water Reactor (ESBWR) design. There is currently no review schedule for this design. Yet the review of the ESBWR design is required to be completed before a Combined License can be issued. With no established end date for review of the ESBWR, there would be no impact on the schedule were we to provide interested members of the public with additional time in which to exercise their statutory right to an opportunity for a hearing.

Cite as 69 NRC 87 (2009)

LBP-09-2

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Dr. Paul B. Abramson, Chairman
Dr. Michael F. Kennedy
Dr. Jeffrey D. E. Jeffries

In the Matter of

Docket Nos. **52-027-COL**
52-028-COL
(ASLBP No. **09-875-03-COL-BD01**)

**SOUTH CAROLINA ELECTRIC &
GAS COMPANY and SOUTH
CAROLINA PUBLIC SERVICE
AUTHORITY (also referred to
as SANTEE COOPER)**
(Virgil C. Summer Nuclear Station,
Units 2 and 3)

February 18, 2009

**RULES OF PRACTICE: CONTENTIONS (CHALLENGE OF
COMMISSION RULE)**

Petitioner here impermissibly challenges NRC's regulations, which explicitly provide that "[a]ll nuclear safety issues," 10 C.F.R. Part 52, App. D, § VI.B.1, and "[a]ll environmental issues concerning severe accident mitigation design alternatives associated with . . . the NRC's EA [(environmental assessment)] for the AP1000 design and Appendix 1B of the generic [Design Control Document (DCD)]" are considered resolved by the Commission. 10 C.F.R. Part 52, App. D, § VI.B.7.

RULES OF PRACTICE: CONTENTIONS (CHALLENGE OF COMMISSION RULE)

The revision process is contemplated by NRC regulations, *see, e.g.*, 10 C.F.R. § 52.55(c); *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1, 3-4 (2008), and is currently being carried out through the design certification rulemaking. The appropriate path for any petitioner's challenges to proposed design revisions is through participation in those rulemaking proceedings, not through a combined license (COL) proceeding. *See* Conduct of New Reactor Licensing Proceedings; Final Policy Statement, 73 Fed. Reg. 20,963 (Apr. 17, 2008); *Shearon Harris*, CLI-08-15, 68 NRC at 4.

COMBINED LICENSE: EXEMPTIONS AND DEPARTURES

Along the way, and certainly once a final design is certified, each Combined License Application (COLA) applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom. *See, e.g.*, 10 C.F.R. § 52.63(b)(1), (2); 10 C.F.R. Part 52, App. D, §§ IV, VIII. An applicant will also have to demonstrate that the site-specific parameters are bounded by the parameters developed for the certified design. *See, e.g.*, 10 C.F.R. Part 52, App. D, §§ II.C, VI.B.7.

COMBINED LICENSE: EXEMPTIONS AND DEPARTURES

The process for taking exemptions and departures from the certified design is set forth in 10 C.F.R. Part 52, App. D, § VIII, and we note that there are provisions in both subsections A.4 and B.4 thereof that describe the process for hearings and litigation on any such departures and exemptions. *See* 10 C.F.R. §§ 52.63(b)(1), 52.98(f), 50.12(a). *See also* 73 Fed. Reg. 20,963; *Shearon Harris*, CLI-08-15, 68 NRC at 4.

RULES OF PRACTICE: CONTENTIONS (OPPORTUNITY TO PETITION)

At the appropriate point in the overall COLA/DCD process, an interested party will have the opportunity to petition for intervention to raise matters that are material to the decision the NRC must make regarding the licenseability of the proposed nuclear units.

RULES OF PRACTICE: CONTENTIONS (CHALLENGE OF COMMISSION RULE)

A contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible. *See Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974); *see also Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 218 (2003).

RULES OF PRACTICE: CONTENTIONS (CHALLENGE OF COMMISSION RULE)

An applicant for a COL is expressly authorized by NRC's regulations to incorporate by reference a certified design. *See, e.g.*, 10 C.F.R. §§ 52.55(c), 52.73(a), 52.79(d)(1).

RULES OF PRACTICE: CONTENTIONS (CHALLENGE OF COMMISSION RULE)

Challenges to the certified design (or the certification thereof) are outside the scope of this adjudicatory proceeding and should be resolved in the design certification rulemaking. *Shearon Harris*, CLI-08-15, 68 NRC at 4.

NEPA: ENVIRONMENTAL ANALYSIS (POTENTIAL TERRORIST ATTACK)

The National Environmental Policy Act (NEPA) is not an appropriate vehicle for exploring questions about the potential for a terrorist attack upon a proposed nuclear facility. *See, e.g., System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-07-10, 65 NRC 144 (2007); *Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-07-9, 65 NRC 139, 141-42 (2007); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-07-8, 65 NRC 124, 128-34 (2007).

FEDERAL COURTS: NINTH CIRCUIT NEPA INTERPRETATION

Although the United States Court of Appeals for the Ninth Circuit has held that the NRC must address certain matters to satisfy its NEPA obligations, *see San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006), *cert. denied*, 549 U.S. 1166 (2007), the Commission has stated that it does not

consider itself bound by that holding outside the Ninth Circuit, *see Oyster Creek*, CLI-07-8, 65 NRC at 128-29, and this Board is bound by that position.

SCOPE: DESIGN BASIS THREATS

The need for design features to guard against Design Basis Threats is outside the scope of this proceeding because it is the subject of an ongoing rulemaking. *See* Consideration of Aircraft Impacts for New Nuclear Power Reactor Designs, 72 Fed. Reg. 56,287 (Oct. 3, 2007).

SCOPE: DESIGN BASIS EVENTS

Events that could cause radioactive releases (including aircraft impact events) are included within the set of Design Basis Events required to be analyzed and designed against only if the probability of such events is above 10^{-6} per year. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 260 (2001).

NEPA: ENVIRONMENTAL REPORT (COST-BENEFIT ANALYSIS)

The Commission stated that “[q]uibbling over the details of an economic analysis . . . [amounts to] . . . standing NEPA on its head by asking that the license be rejected not due to environmental costs, but because the economic benefits are not as great as estimated.” *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 145 (2004) (internal quotation marks omitted).

NEPA: ENVIRONMENTAL REPORT (ALTERNATIVES ANALYSIS)

In 10 C.F.R. § 51.45(b)(3), the NRC’s regulations adopt NEPA’s requirement that an agency consider alternatives that are “appropriate alternatives to recommended courses of action.” 42 U.S.C. § 4332(2)(E). A reviewing agency determines whether an alternative is “appropriate” by looking at the objectives (i.e., purpose and need) of a project sponsor. *See Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C. Cir. 1991). So long as the applicant has “not set forth an unreasonably narrow objective of its project,” *see* Nuclear Energy Institute; Denial of Petition for Rulemaking, 68 Fed. Reg. 55,905, 55,910 (Sept. 29, 2003), the NRC adheres to the principle that “when the purpose is to accomplish one thing, it makes no sense to consider alternative ways by which another thing might be accomplished.” *Citizens Against Burlington*, 938 F.2d at 195 (citing *City of Angoon*, 803 F.2d 1016, 1021 (9th Cir. 1986)).

NEPA: ENVIRONMENTAL REPORT (COST-BENEFIT ANALYSIS)

Costs for a project are relevant for the determination only if an environmentally preferable option is identified. *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 163 (1978).

NEPA: ENVIRONMENTAL REPORT (COST-BENEFIT ANALYSIS)

The accuracy of project cost estimates only becomes relevant if an environmentally preferable alternative has been identified. *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), LBP-08-21, 68 NRC 554, 576 (2008).

NEPA: ENVIRONMENTAL REPORT (COST INFORMATION)

“[T]he NRC is not in the business of regulating the market strategies of licensees . . . and leave[s] to licensees the ongoing business decisions that relate to costs and profit.” *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 726 (2005) (internal citation omitted).

NEPA: ENVIRONMENTAL REPORT (COST-BENEFIT ANALYSIS)

NEPA charges a federal agency with weighing the environmental effects and impacts of the proposed project and its alternatives against each other and balancing those effects against the benefits of each such project. The Commission is consummately clear that its obligations under NEPA focus on “the adjective ‘environmental,’” and “NEPA does not require the agency to assess every impact or effect . . . , but only the impact or effect on the environment.” *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 88 (1998) (citing *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 772 (1983)).

ORDER

(Ruling on Standing and Contention Admissibility)

Applicant South Carolina Electric & Gas Company, acting for itself and as agent for the South Carolina Public Service Authority (also referred to as Santee Cooper) (SCE&G or Applicant), has applied to the Nuclear Regulatory Commission (NRC or Agency) for a combined operating license (COL) under 10 C.F.R. Part 52 that would authorize SCE&G to construct and operate two

new Westinghouse Electric Corporation AP1000 advanced pressurized water power reactor units on its existing Virgil C. Summer site, located in Fairfield County, South Carolina.¹ By hearing petition dated December 7, 2008, Joseph Wojcicki filed a petition to intervene,² and on December 8, 2008, the Sierra Club and Friends of the Earth (FOE) filed a joint petition to intervene.³ In their joint petition, the Sierra Club and FOE challenge various aspects of SCE&G's combined operating license application (COLA). Additionally, the South Carolina Office of Regulatory Staff (SC ORS) filed a request to participate in the proceeding as an interested governmental entity pursuant to 10 C.F.R. § 2.315.⁴

For the reasons set forth below, we find that while the Sierra Club has standing to intervene and SC ORS may participate in the proceeding as an interested governmental entity, the Sierra Club's Petition is denied because it has failed to submit an admissible contention. Petitions to intervene by FOE and Joseph Wojcicki are both denied as neither has demonstrated standing to participate in this proceeding. There being no admissible contention from any petitioner, SC ORS's request is denied as moot.

I. BACKGROUND

On March 27, 2008, SCE&G submitted a COLA to construct and operate two Westinghouse AP1000 pressurized water reactors at the existing Virgil C. Summer site.⁵ The NRC Staff (Staff) docketed the COLA on July 9, 2008,⁶ and on October 10, 2008, a Notice of Hearing and Opportunity to Petition for Leave to Intervene was issued.⁷ On December 7, 2008, Joseph Wojcicki, and on December 8, 2008, the Sierra Club together with FOE filed petitions to intervene on the Summer Units 2 and 3 COLA.⁸ On December 8, 2008, SC ORS filed a

¹ See South Carolina Electric and Gas Company (SCE&G) and the South Carolina Public Service Authority (Santee Cooper); Notice of Receipt and Availability of Application for a Combined License, 73 Fed. Reg. 39,339 (July 9, 2008) [hereinafter Notice of Receipt].

² Petition to Intervene (Dec. 7, 2008) [hereinafter Wojcicki Petition].

³ Petition to Intervene and Request for Hearing by Sierra Club and Friends of the Earth (Dec. 8, 2008) [hereinafter Sierra Club Petition].

⁴ Request of the [SC ORS] for an Opportunity to Participate in Any Hearing and to Be Added to the Official Service List (Dec. 8, 2008) [SC ORS Request].

⁵ The COLA for Virgil C. Summer, Units 2 and 3, may be viewed at <http://www.nrc.gov/reactors/new-reactors/col/summer.html>.

⁶ See Notice of Receipt.

⁷ [SCE&G] Application for the Virgil C. Summer Nuclear Station Units 2 and 3; Notice of Order, Hearing, and Opportunity to Petition for Leave to Intervene, 73 Fed. Reg. 60,362 (Oct. 10, 2008).

⁸ Wojcicki Petition; Sierra Club Petition.

request for an opportunity to participate in the Summer proceeding pursuant to 10 C.F.R. § 2.315.

This Atomic Safety and Licensing Board was established on December 18, 2008, to adjudicate the Summer COL proceeding.⁹ SCE&G and Staff filed answers to the petitions to intervene¹⁰ and the request to participate from the SC ORS.¹¹ Thereafter, on January 7, 2009, and January 12, 2009, Mr. Wojcicki and Sierra Club and FOE, respectively, filed replies to the answers.¹²

To be admitted as a party in an NRC proceeding, a petitioner must establish standing¹³ by satisfying the requirements set forth in 10 C.F.R. § 2.309(d), and must proffer an admissible contention, in accordance with 10 C.F.R. § 2.309(f)(1).

II. ANALYSIS

A. Standing of Petitioners and Request of SC ORS to Participate as a Nonparty Interested Governmental Entity

1. *Sierra Club and Friends of the Earth*

In assessing a petition to determine whether the requirements for standing are met, the Commission has indicated that it “construe[s] the petition in favor of the petitioner.”¹⁴ Neither SCE&G nor Staff objects to Sierra Club’s representational standing.¹⁵ In this situation, and considering the requirements for granting standing to a petitioner, we find that Sierra Club (Petitioner) has made the requisite showing to demonstrate that the interests of several of its members, who have

⁹ See Establishment of Atomic Safety and Licensing Board, 73 Fed. Reg. 79,196 (Dec. 24, 2008).

¹⁰ [SCE&G’s] Answer Opposing Joseph Wojcicki’s Petition to Intervene (Jan. 2, 2009); NRC Staff Answer to “Petition to Intervene” from Joseph Wojcicki (Jan. 2, 2009); [SCE&G’s] Answer Opposing the Petition to Intervene of Sierra Club and Friends of the Earth (Jan. 5, 2009) [hereinafter SCE&G Answer]; NRC Staff Answer to “Petition to Intervene and Request for Hearing by Sierra Club and Friends of the Earth” (Jan. 5, 2009) [hereinafter Staff Answer].

¹¹ [SCE&G’s] Answer to the [SC ORS’s] Request to Participate as an Interested State and to Be Added to the Official Service List (Dec. 24, 2008); NRC Staff Answer to “Request of the [SC ORS] for an Opportunity to Participate in Any Hearing and to Be Added to the Official Service List” (Jan. 2, 2009).

¹² The Additional Information Supporting Joseph Wojcicki’s “Petition to Intervene” (Jan. 7, 2009); Reply by Sierra Club and Friends of the Earth (Jan. 12, 2009).

¹³ 10 C.F.R. § 2.309(a).

¹⁴ *Georgia Institute of Technology* (Georgia Tech Research Reactor), CLI-95-12, 42 NRC 111, 115 (1995).

¹⁵ SCE&G Answer at 8; Staff Answer at 3.

agreed in signed affidavits that Sierra Club should represent them,¹⁶ satisfy the requirements of representational standing.¹⁷ FOE, however, failed to make a satisfactory showing to obtain standing in its own right because it has neither demonstrated representational standing in its original petition¹⁸ nor made any showing of harm to its organizational interests.¹⁹

2. *Joseph Wojcicki*

Joseph Wojcicki cannot be granted standing because he failed to address the NRC's standing requirements in his petition.²⁰ Additionally, we note that even if we were to find that Mr. Wojcicki has standing, we would not admit him as a party to this proceeding because he failed to submit an admissible contention.²¹

¹⁶ See Pet., Decl. of Susan Corbett (Dec. 8, 2008); Pet., Decl. of Thomas W. Clements (Dec. 8, 2008); Pet., Decl. of Leslie A. Miner (Dec. 8, 2008); Pet., Decl. of Meira Maxine Warshauer (Dec. 8, 2008); Pet., Decl. of Pamela Greenlaw (Dec. 7, 2008).

¹⁷ For a detailed discussion of the requirements to show standing, see, e.g., *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996). See also *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000) (discussing representational standing); *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989) (discussing proximity factors as a standing requirement).

¹⁸ None of the affidavits from individuals living in the vicinity of the Summer site, submitted with the original Petition to Intervene and all of which are in substantially the same form, makes any mention of FOE or states that FOE is authorized to represent the affiant's interests. While FOE attempted to cure these deficiencies in its reply by attaching relevant affidavits, that effort is unavailing because it "is not acceptable in NRC practice for a petitioner to claim standing based on vague assertions, and when that fails, to attempt to repair the defective pleading with fresh details offered for the first time in [its reply]." *Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 261 (2008) (citing *Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-22, 65 NRC 525, 527-28 (2008)).

¹⁹ See, e.g., *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 426 (2002) (stating that "[a]n organization that wishes to intervene in a proceeding may do so either in its own right by demonstrating harm to its organizational interests, or in a representational capacity by demonstrating harm to its members").

²⁰ Although Mr. Wojcicki attempted to cure this failure in his reply by stating that he resides within 50 miles of the Summer facility, his effort fails because NRC practice prohibits a petitioner from establishing standing in a reply when it was not established in the original petition. *Palisades*, CLI-08-19, 68 NRC at 261 (citing *Palisades*, CLI-07-22, 65 NRC at 527-28).

²¹ In his petition, Mr. Wojcicki states that he would like to intervene in this proceeding so that he can "be sure that the motion to change the location of the two AP1000 nuclear reactors from the currently proposed . . . site, to a new location" is accepted because it would provide "significantly better economic, environmental, and social solutions." Wojcicki Petition at 1. This statement fails

(Continued)

3. SC ORS

We would grant, pursuant to the provisions of 10 C.F.R. § 2.315(c), SC ORS's request to participate as a nonparty interested governmental entity,²² but because no petitioner has submitted an admissible contention, SC ORS's request must be denied as moot.

B. Admissibility of Contentions

1. Contention Admissibility Standards

Contention admissibility is governed by 10 C.F.R. § 2.309(f)(1), which specifies a set of strict requirements that must all be satisfied for a contention to be admissible. For a contention to be admissible under 10 C.F.R. § 2.309(f)(1), it must satisfy each of the following criteria: (1) provide a specific statement of the legal or factual issue sought to be raised; (2) provide a brief explanation of its basis; (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 opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at hearing; and (6) provide sufficient information demonstrating that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief.²³ These standards have been considered at length by other licensing boards and the Commission, and we will not repeat the discussion here.²⁴

to meet any of the contention admissibility requirements set forth in 10 C.F.R. § 2.309(f)(1). To be admitted, a petitioner must put forth a contention that satisfies all of these requirements in addition to demonstrating that he or she has satisfied the standing requirements.

²² Under 10 C.F.R. § 2.315(c), "an interested State [or] local governmental body . . . which has not been admitted as a party under § 2.309 [shall be afforded] a reasonable opportunity to participate in a hearing." Neither SCE&G nor Staff objects to allowing SC ORS to participate as an interested governmental entity.

²³ 10 C.F.R. § 2.309(f)(1).

²⁴ A thorough discussion of relevant case law has been presented, for example, in *Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 68 NRC 431, 440-42 (2008).

2. *Sierra Club's Contentions*

a. *Contention 1 (AP1000 Deficiencies)*

CONTENTION: The COLA is incomplete at this time because many of the major safety components and procedures proposed for the Summer reactors are only conditionally designed at best. In its COLA, SCE&G has adopted the AP1000 [Design Control Document] DCD Revision 16 which has not been certified by the NRC and with the filing of Revision 17 by Westinghouse, Revision 16 will no longer be reviewed by the NRC Staff. SCE&G is now required to resubmit its COLA as a plant-specific design or to adopt Revision 17 by reference and provide a timetable when its safety components will be certified. Either the plant-specific design or adoption of AP1000 Revision 17 would require changes in SCE&G's application, the final design and operational procedures. Regardless of whether the components are certified or not, the COLA cannot be reviewed without the full disclosure of all designs and operational procedures.²⁵

DISCUSSION: In support of this contention, insofar as it might be a challenge to the COLA, Petitioner makes a series of assertions that we divide into two categories. Petitioner asserts either that the COLA is incomplete (i.e., a contention of omission), or that there is a defect in the COLA (i.e., there is some specific error).

Petitioner asserts, as support for its contention, that "[t]he most significant elements of the proposed reactors, i.e., the design and operational practices, are lacking in the COLA."²⁶ Petitioner goes on to discuss the history of the recently submitted revisions on the AP1000 design, which currently are being examined for certification.²⁷ Petitioner alleges, without support, that "[i]t is impossible to conduct a meaningful technical and safety review of the COLA without knowing the final design of the reactors as they would be constructed by SCE&G,"²⁸ and that, "[o]n its face, the DCD is incomplete . . ."²⁹ Petitioner then presents a series of bare assertions relating to components that have or have not been certified.³⁰ Petitioner's perception of the interaction between the design certification process, which is being conducted by rulemaking, and the COLA review and litigation process, is expressed in its statement: "[d]uring the Revision 17 certification process, any or all of these [certified/uncertified components] may be modified by

²⁵ Sierra Club Petition at 12-13.

²⁶ *Id.* at 13.

²⁷ *Id.* at 14.

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.* at 14-15.

the Commission, and as a result, require the applicant to modify its application.’³¹ Petitioner asserts that ‘[a]n assessment of the risk is required for a COLA review, and that depends on the ultimate design of the reactor and how all of the components interact with each other’³² Finally, Petitioner asserts that the severe accident mitigation alternatives (SAMAs)³³ cannot be determined until the final design is complete.³⁴

Both Staff and Applicant oppose admission of this contention, stating that it is an attack upon the design certification process that is being conducted by rulemaking and, accordingly, is outside the scope of this proceeding.³⁵ In addition, Staff and Applicant oppose admission of this contention on the grounds that it fails to comply with the requirements of 10 C.F.R. § 2.309(f)(1).³⁶

HOLDING: This contention is, for the reasons set out below, inadmissible.

First, this contention is an impermissible attack on the design certification process and such matters are outside the scope of this proceeding.³⁷ Second, to the extent that Petitioner asserts that nuclear safety matters and environmental

³¹ *Id.* at 15.

³² *Id.* at 16.

³³ *Id.* at 17. Throughout its contentions, Petitioner exclusively refers to severe accident mitigation alternatives (SAMAs) when it would have been more appropriate to discuss severe accident mitigation design alternatives (SAMDA) since SAMDA analysis is an integral part of the design certification process and is the more relevant element of the analysis at this stage of the COL process. Applicant has addressed the SAMA process in its ER and stated that its intent is to demonstrate that the Summer units are bounded by the SAMDA analysis performed by Westinghouse in its Design Control Document (DCD). The relevant SAMA analysis is being performed in connection with the design certification rulemaking, and is therefore outside the scope of this proceeding (*see infra* note 37).

³⁴ Sierra Club Petition at 17.

³⁵ *See, e.g.*, Staff Answer at 21-24; SCE&G Answer at 21-28. Both of these Answers provide accurate references to legal authority that is binding upon this Board with regard to this issue. *See, e.g.*, 10 C.F.R. §§ 52.55(c), 52.73(a); 73 Fed. Reg. at 20,972-73; *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1, 4 (2008).

³⁶ *See, e.g.*, Staff Answer at 24-26; SCE&G Answer at 28-34. In Attachment 2 to SCE&G’s Answer, the Applicant explicitly points to the particular locations in the COLA where the matters Petitioner argues are missing from the COLA are actually addressed. Petitioner failed to contradict, or even address, these assertions in its Reply.

³⁷ A contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible. *See Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974); *see also Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 218 (2003). An applicant for a COLA is expressly authorized by NRC’s regulations to incorporate by reference a certified design. *See, e.g.*, 10 C.F.R. §§ 52.55(c), 52.73(a), 52.79(d)(1). The certification of the AP1000 design (including consideration of proposed revisions to the certified design) is the subject of current Commission rulemaking. In addressing precisely this issue, the Commission noted that it had ‘discussed this very situation in [Conduct of New Reactor Licensing Proceedings; Final Policy Statement, 73 Fed. Reg. 20,963, 20,972 (Apr. 17, 2008)] . . . [and] stated
(Continued)

matters are not satisfactorily addressed in the design certification or the COLA because the design is still evolving, Petitioner again raises matters outside the scope of this proceeding.³⁸ Moreover, Petitioner here impermissibly challenges NRC's regulations, which explicitly provide that "[a]ll nuclear safety issues"³⁹ and "[a]ll environmental issues concerning severe accident mitigation design alternatives [(SAMDAs)] associated with . . . the NRC's EA [(environmental assessment)] for the AP1000 design and Appendix 1B of the generic DCD" are considered resolved by the Commission.⁴⁰ While we recognize that Petitioner's principal complaint is that the design continues to evolve through revision, the revision process is contemplated by NRC regulations⁴¹ and is currently being carried out through the design certification rulemaking. The appropriate path for any petitioner's challenges to proposed design revisions is through participation in those rulemaking proceedings, not through a COL proceeding.⁴²

With regard to Petitioner's direct challenges to the COLA itself, we address these challenges as either asserted omissions from, or asserted errors in, the COLA. To the extent that this contention asserts omissions from the COLA, Applicant has provided an exhaustive list in Attachment 2 to its Answer explicitly addressing where in the COLA each asserted omitted matter is, in fact, addressed, and Petitioner has not contradicted a single item in that list in its reply. Therefore, we find that, to the extent that Contention 1 is construed as a contention of omission, Petitioner fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi) because the matter(s) it asserts had not been addressed had in fact been addressed and thus there is no genuine dispute of material fact. For the same reasons, and because Petitioner has failed to present any reason why the assertedly omitted information must be addressed in the design certification process, to the extent

that issues concerning a design certification application should be resolved in the design certification rulemaking and not in a COL proceeding." *Shearon Harris*, CLI-08-15, 68 NRC at 4. We take the use of the word "should" by the Commission therein to mean, for this Board, "must." Therefore, challenges to the certified design (or the certification thereof) are outside the scope of this adjudicatory proceeding. Had, however, Petitioner properly raised a contention challenging information in the design certification rulemaking (i.e., a contention that would be admissible except for the fact that it challenged information in the design certification), such a contention "should [be] refer[red] . . . to the Staff for consideration in the design certification rulemaking, and [held] . . . in abeyance, *if it is otherwise admissible*." *Id.* at 4 (emphasis added). Here, as our analysis above discusses, no such "otherwise admissible" contention regarding the design certification was submitted.

³⁸ *See supra* note 37. Matters relating to all nuclear safety issues (with certain delineated exceptions) are deemed resolved by the design certification for the AP1000. *See* 10 C.F.R. Part 52, App. D, § VI.B.1.

³⁹ *Id.* The regulation sets out certain exceptions to this rule, none of which falls within Petitioner's challenge.

⁴⁰ *Id.* § VI.B.7.

⁴¹ *See, e.g.*, 10 C.F.R. § 52.55(c); *Shearon Harris*, CLI-08-15, 68 NRC at 3-4.

⁴² *See* 73 Fed. Reg. 20,963; *Shearon Harris*, CLI-08-15, 68 NRC at 4.

that these challenges are directed at the certified design rather than the COLA, they fail to formulate an otherwise admissible contention. Therefore we will not hold the challenges in abeyance or refer them to Staff for resolution in the design certification rulemaking.

Insofar as we might interpret this contention to assert an error (a defect that is not an omission) in the COLA, Petitioner fails utterly to identify and challenge any specific portion of the COLA, which is required by 10 C.F.R. § 2.309(f)(1)(vi), and fails to provide a scintilla of factual or expert support for, let alone any references to specific sources or documents upon which it intends to rely to indicate, any such asserted error, which is required by 10 C.F.R. § 2.309(f)(1)(v). Thus we find that, in this contention, Petitioner has not submitted an admissible contention asserting an omission from, or error in, the COLA. Similarly, and for the same reasons, to the extent we might interpret this to assert an omission from, or error in, the design that is being considered for certification, it fails to create an otherwise admissible contention that should be held in abeyance and referred to Staff for consideration in the design certification rulemaking.

Further, we note that Petitioner makes a variety of other unsupported assertions regarding its view of the process, but none are definitive enough to satisfy NRC's contention admissibility requirements.⁴³

Additionally, in response to Petitioner's analogy to a contention raised in the *Shearon Harris* COLA proceeding,⁴⁴ we point out the clear distinction between Petitioner's Contention 1 and the contention of omission asserted by the petitioners in the *Shearon Harris* proceeding. In the *Shearon Harris* proceeding, petitioners asked the Commission to delay the proceeding until the design certification was completed, and in submitting its contentions asserted, as the Commission had advised in ruling upon their request, specific omissions from the COLA itself.

⁴³ For example, Petitioner asserts, without citation to any legal authority, that "SCE&G is now required to resubmit its COLA as a plant-specific design or to adopt Revision 17 by reference and provide a timetable when its safety components will be certified." Sierra Club Petition at 13. Furthermore, Petitioner alleges that, "[r]egardless of whether the components are certified or not, the COLA cannot be reviewed without the full disclosure of all designs and operational procedures." *Id.* But the fact is that the COLA is being reviewed by the Staff, which has access to the all the information required for design certification and to the complete COLA, and Petitioner has the same access and fails to provide any support for any implied proposition that it does not. Petitioner makes the bare unsupported assertion that "it is impossible to conduct the probabilistic risk assessment [(PRA)] for the proposed Summer reactors without a final design and operations procedures." *Id.* at 15. Here again, Petitioner fails to contradict the COLA, failing to consider, examine, or criticize the PRA that exists in the COLA. It is worthy of note that the Commission deems all environmental issues associated with SAMDAs developed in connection with the certified design to be resolved and to provide adequate protection of the public health and safety in each case where a site-specific evaluation demonstrates the particular plant is bounded by the generic design certification parameters. 10 C.F.R. Part 52, App. D, § VI.B.7.

⁴⁴ Sierra Club Petition at 15-16 (citing *Shearon Harris*, CLI-08-15, 68 NRC 1.

In contrast to Petitioner's contention here, (a) the petitioners in *Shearon Harris* listed and asserted specific omissions from the application itself, whereas here Petitioner did not do so; and (b) in the *Shearon Harris* proceeding, neither Staff nor applicant took exception to the asserted omissions, or attempted to indicate where the relevant information was presented.⁴⁵ We face, in this proceeding, neither any specifically asserted and supported omission or error nor any absence of clarity regarding where the relevant matters are addressed in the COLA.

Finally, we call to Petitioner's attention the process by which new information, which may arise in connection with the ongoing certification process, is integrated with the eventual site-specific plant application. As we observed above, an applicant is permitted to incorporate by reference the certified design into the COLA, but changes proposed to the certified design are to be addressed in the design certification rulemaking and are not within the scope of this proceeding.⁴⁶ Nonetheless, along the way, and certainly once a final design is certified, each COLA applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom.⁴⁷ An applicant will also have to demonstrate that the site-specific parameters are bounded by the parameters developed for the certified design.⁴⁸ The process for taking such exemptions and departures is set forth in 10 C.F.R. Part 52, App. D, § VIII, and we note that there are provisions in both subsections A.4 and B.4 thereof that describe the process for hearings and litigation on any such departures and exemptions.⁴⁹ Thus, at the appropriate point in the overall COLA/DCD process, an interested party will have the opportunity to petition for intervention to raise matters that are material to the decision the NRC must make regarding the licenseability of the proposed Summer nuclear units.

b. Contention 2 (Aircraft Crashes)

CONTENTION: SCE&G's ER [Environmental Report], Chapter 7, "Postulated Accidents," fails to satisfy [the National Environmental Policy Act (NEPA)] and the NRC rules because it does not address the environmental impacts of a successful attack by either the accidental or deliberate and malicious crash of a fuel-laden and/or

⁴⁵ *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plants, Units 2 and 3), LBP-08-21, 68 NRC 554, 576 (2008).

⁴⁶ *See, e.g.*, 10 C.F.R. § 52.55(c); 73 Fed. Reg. 20,963; *Shearon Harris*, CLI-08-15, 68 NRC at 3-4.

⁴⁷ *See, e.g.*, 10 C.F.R. § 52.63(b)(1), (2); 10 C.F.R. Part 52, App. D, §§ IV, VIII.

⁴⁸ *See, e.g.*, 10 C.F.R. Part 52, App. D, §§ II.C, VI.B.7.

⁴⁹ *See* 10 C.F.R. §§ 52.63(b)(1), 52.98(f), 50.12(a). *See also* 73 Fed. Reg. 20,963; *Shearon Harris*, CLI-08-15, 68 NRC at 4 ("If an applicant later decides not to reference a certified design, and instead proceeds with a site-specific design, any admissible issues would have to be addressed in the licensing adjudication").

explosive-laden aircraft and resulting severe accidents of the aircraft's impact and penetration on the facility. SCE&G is required to identify and incorporate into the design those design features and functional capabilities that avoid or mitigate, to the extent practicable and with reduced reliance on operator actions, the effects of the aircraft impact on the key safety functions, such as core cooling capability, containment integrity, spent fuel cooling capability and spent fuel pool integrity.⁵⁰

DISCUSSION: In support of this contention, Petitioner refers us to 10 C.F.R. § 50.34(a)(4), which provides that an application for a construction permit must include,

a preliminary analysis and evaluation of the design and performance of structures, systems, and components of the facility with the objective of assessing the risk to public health and safety resulting from operation of the facility and including determination of the margins of safety during normal operations and transient conditions anticipated during the life of the facility, and the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents.⁵¹

Petitioner then asserts that the Summer COLA does not assess the consequences of one particular category of potential accidents — aviation attacks — including failing to assess the resulting impact, penetration, explosion, and fire. Such an attack, alleges Petitioner, is “likely enough” to qualify as a design-basis threat (DBT).⁵² Citing an NRC study released in October 2000, which analyzed spent fuel pool hazards associated with nuclear plants undergoing decommissioning, Petitioner asserts that the study found that, “the impacts of an aircraft attack were possible, and the results were potentially devastating.”⁵³ Petitioner then refers to Commission rulemakings initiated in 2002⁵⁴ and 2006,⁵⁵ and an issue brief from the Union of Concerned Scientists⁵⁶ to support Petitioner’s conclusion that “[a]ll of the studies conducted by the NRC and outside parties have shown that nuclear reactors cannot withstand aviation attacks, and that attacks on containment

⁵⁰ Sierra Club Petition at 17-18.

⁵¹ *Id.* at 18.

⁵² *Id.* We note, however, there is a fundamental distinction between design basis events, which are accidents that must be considered in the design of the plant, *see* 10 C.F.R. § 50.34(a)(4), and design basis threats, which are accidents that must be considered in the design of plant security features, *see* 10 C.F.R. § 73.1. The Petitioner seems to conflate these terms.

⁵³ Sierra Club Petition at 20.

⁵⁴ *Id.* (citing All Operating Power Reactor Licensees; Order Modifying Licenses, 67 Fed. Reg. 9792 (Mar. 4, 2002)).

⁵⁵ *Id.*; Design Basis Threat, 72 Fed. Reg. 12,705 (Mar. 19, 2007).

⁵⁶ Sierra Club Petition at 21 (citing David Lochbaum, *The NRC’s Revised Security Regulations*, (Feb. 1, 2007), available at <http://a4nr.org/library/security/02.01.2007-ucs>).

structures and spent fuel pools can be devastating.”⁵⁷ Finally turning to legal precedent, Petitioner asserts that: (a) the United States Court of Appeals for the Ninth Circuit found that the Commission’s position in its Final Rulemaking that the “ ‘passive measures already in place . . . are appropriate for protecting nuclear facilities from an aerial attack’ ”⁵⁸ was unreasonable and required the NRC to investigate aviation threats,⁵⁹ and (b) if the Commission finalizes the rule it is currently considering in an ongoing NRC rulemaking proceeding, “applicants for new nuclear power reactors [would be required] to incorporate into their design additional practical features that would avoid or mitigate the effects of an aircraft impact.”⁶⁰ In all of the foregoing, we find Petitioner’s focus to be on “attacks,” which relate to acts of sabotage (i.e., DBTs not Design Basis Events (DBEs)).

Petitioner seeks to rely upon the provisions of 10 C.F.R. § 51.53 to support its proposition that the COLA ER at issue here must analyze aircraft impact events because, Petitioner notes, it requires a *license renewal applicant* to consider severe accident mitigation alternatives (SAMAs) within its ER if the Staff has not previously evaluated such alternatives for the plant for which a license renewal is sought.⁶¹ (We note, however, that Petitioner misapprehends the scope of the requirements of 10 C.F.R. § 51.53 that relate to license renewals. An applicant for a COL that elects, as here, to reference a certified design is permitted, under 10 C.F.R. § 51.51(c)(2), to incorporate by reference the ER prepared in connection with the certified design, and that is, in turn, required pursuant to 10 C.F.R. § 51.55(a), to consider severe accident mitigation design alternatives.) Petitioner concludes that the ER for the proposed Summer reactors does not provide sufficient information for the Staff to consider reasonable alternatives for avoiding or reducing the environmental impacts of this class of threats and accidents (a fault that would amount to an asserted failure of the Staff to satisfy its NEPA obligations), which, it asserts, is considered a serious omission in the COLA.⁶²

Both Applicant and Staff oppose admission of this contention.⁶³ Applicant asserts that the contention is inadmissible for several reasons. First, Applicant asserts that Contention 2 directly challenges Commission precedent and regula-

⁵⁷ *Id.*

⁵⁸ *Id.* at 20-21 (citing SECY-06-0219 (Final Rulemaking to Revise 10 CFR 73.1, Design Basis Threat (DBT) Requirements) (Oct. 30, 2006) at 4).

⁵⁹ *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006), *cert. denied*, 549 U.S. 1166 (2007).

⁶⁰ Sierra Club Petition at 23 (citing Power Reactor Security Requirements; Supplemental Proposed Rule, 73 Fed. Reg. 19,443 (Apr. 10, 2008)).

⁶¹ *Id.*

⁶² Sierra Club Petition at 24.

⁶³ SCE&G Answer; Staff Answer.

tions and raises matters that are subject to ongoing rulemakings and are therefore outside the scope of this proceeding, failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(iii). Second, Applicant asserts that Contention 2 fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi) in that the contention fails to controvert relevant portions of the COLA. Third, Applicant asserts that Contention 2 fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v) in that the specific documents Petitioner identifies as being among those upon which it would rely lack adequate factual support for the assertion that an aircraft impact assessment is needed for the proposed Summer facility.⁶⁴ In like manner, the Staff opposes Contention 2, asserting that it is inadmissible both because it concerns issues that are the subject of an ongoing rulemaking and because it fails to satisfy 10 C.F.R. § 2.309(f)(1)(iii), (iv), (v), and (vi).⁶⁵ With respect to issues raised in this contention regarding severe accident mitigation, Staff asserts that such matters are outside the scope of this proceeding because 10 C.F.R. Part 52, App. D, § VI.B.7 provides, in relevant part, that “[t]he Commission considers the following matters resolved within the meaning of 10 CFR 52.63(a)(5) in subsequent proceedings for issuance of a COL . . . [a]ll environmental issues concerning severe accident mitigation design alternatives associated with the information in the NRC’s EA for the AP1000 design.”⁶⁶

HOLDING: This contention is, for the reasons set out below, inadmissible.

The kernel of this contention is the assertion that there is an omission from the COLA because it does not contain an assessment of aircraft impacts. This deficiency, asserts Petitioner, is contrary to both NEPA and NRC regulations.

In addressing Petitioner’s NEPA arguments, we are bound by the Commission’s steadfast position that NEPA is not an appropriate vehicle for exploring questions about the potential for a terrorist attack upon a proposed nuclear facility.⁶⁷ Although the United States Court of Appeals for the Ninth Circuit has held that the NRC must address such matters to satisfy its NEPA obligations,⁶⁸ the Commission has stated that it does not consider itself bound by that holding

⁶⁴ SCE&G Answer at 36.

⁶⁵ Staff Answer at 27-39.

⁶⁶ *Id.* at 38 (citing 10 C.F.R. Part 52, App. D, § VI.B.7).

⁶⁷ See, e.g., *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-07-10, 65 NRC 144 (2007); *Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-07-9, 65 NRC 139, 141-42 (2007); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-07-8, 65 NRC 124, 128-34 (2007).

⁶⁸ *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006), *cert. denied*, 549 U.S. 1166 (2007).

outside the Ninth Circuit,⁶⁹ and this Board is bound by that position. Thus, there can be no question that a challenge asserting that aircraft impact attacks are required to be assessed under NEPA raises matters outside the scope of this proceeding. Similarly, examination of SAMAs and SAMDAs relating to aircraft attacks, which arise under the Agency's NEPA obligations, are outside the scope of this proceeding.⁷⁰ From the NEPA perspective, therefore, there is no omission in the Summer COLA relating to the assessment of environmental effects of an aircraft attack on the proposed facility.

As to Petitioner's assertion that failure to incorporate analysis of design features to mitigate the effects of an aircraft impact fails to comply with NRC safety-related regulations, the underlying inquiry is whether the probability of aircraft impacts falls above or below the threshold probability that requires analysis.⁷¹ Events that could cause radioactive releases (including aircraft impact events) are included within the set of DBEs required to be analyzed and designed against only if the probability of such events is above 10^{-6} per year.⁷² Here, Applicant has examined the probability of such an event in section 19.58 of the COLA (which incorporates by reference the same section of the AP1000 DCD) and determined it falls below the threshold for a DBE. Thus, this portion of Contention 2 is inadmissible as a

⁶⁹ “[The Commission] is not obliged to adhere, in all of its proceedings, to the first court of appeals decision to address a controversial question,” in that “[s]uch an obligation would defeat any possibility of a conflict between the Circuits on important issues.” *Oyster Creek*, CLI-07-8, 65 NRC at 128-29.

⁷⁰ Nor does Petitioner address the fact that the Commission considers “[a]ll environmental issues concerning severe accident mitigation design alternatives associated with the information in the NRC's EA for the AP1000 design” to be “resolved within the meaning of 10 CFR 52.63(a)(5) in subsequent proceedings for issuance of a COL” 10 C.F.R. Part 52, App. D, § VI.B.7. To the extent we were to interpret this contention to contain a challenge to Applicant's SAMDA analysis, it not only fails to provide the requisite specificity to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi), but it also constitutes an impermissible challenge to Commission regulations.

⁷¹ To the extent Petitioner asserts the need for design features to guard against DBTs, the matter is, as we said above, outside the scope of this proceeding because it is the subject of an ongoing rulemaking. *See* Consideration of Aircraft Impacts for New Nuclear Power Reactor Designs, 72 Fed. Reg. 56,287 (Oct. 3, 2007).

⁷² *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 260 (2001) (“Estimating the probability of extremely unlikely events involves considerable uncertainty when sufficient data are not available to plug into the formula. Therefore, the Standard Review Plan for reactors deems a threshold probability of one in a million (1×10^{-6}) to be acceptable where, ‘when combined with reasonable qualitative arguments, the realistic probability can be shown to be lower.’” NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants” (Rev. 2, July 1981), § 2.2.3(II), “Evaluation of Potential Accidents.” “That is, where a conservative estimate shows an event has no greater than a one-in-a-million probability, that event may be ignored in facility design if reasonable estimates result in a lower probability when conservative margins are not factored in”). We note that guidance to prospective licensees set out in the latest version (Rev. 3, March 2007) of NUREG-0800 mirrors the same guidance as noted above.

contention of omission because there is no foundation for either the proposition that such an event must be analyzed in the COLA or that design alternatives must be examined to mitigate the consequences of such an event. Further, Petitioner fails to challenge with any specificity the analysis set out in the COLA. Thus, this contention is inadmissible as a contention asserting an error in the COLA because it fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi).

c. Contention 3 (Need for Power, Cost of Action, and Alternatives)

CONTENTION: Contrary to the requirements of the National Environmental Policy Act and 10 C.F.R. § 51.45 the Applicant's Environmental Report (ER) fails to adequately discuss the impacts of the proposed action and alternatives in proportion to their significance; fails to discuss alternatives with sufficient completeness to aid the Commission in developing and exploring "appropriate alternatives to recommended courses of action" in this "proposal which involves unresolved conflicts concerning alternative uses of available resources;" fails to adequately present the environmental impacts of this proposal and the alternatives in comparative form; fails to adequately discuss the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity with respect to this proposal and alternatives; fails to adequately discuss irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented; fails to include an adequate analysis that considers and balances the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects; fails to include analyses which, to the fullest extent practicable, quantify the various factors considered or adequately discuss important qualitative considerations or factors that cannot be quantified; and fails to contain sufficient data to aid the Commission in its development of an independent analysis in the following particulars:

- A. With respect to Chapter 8 of the ER, "Need for Power," the Applicant completely dismisses the current economic crisis and recent reductions in its sales, and has conducted no sensitivities of its load forecast to try to capture the possible effects of a recession, including the possibility of a long and deep economic downturn.
- B. With respect to Chapter 9 of the ER, "Proposed Action Alternatives," the Applicant almost completely ignores demand-side management, undervaluing opportunities for cost-effective energy efficiency and demand response or load management.
- C. With respect to Chapter 9 of the ER, "Proposed Action Alternatives," the Applicant ignores the potential contribution of renewables to an overall sustainable and economic portfolio, and does not take into account significant

improvement in unit costs and operations of renewables in recent years and as projected to continue.

- D. With respect to Chapter 9 of the ER, “Proposed Action Alternatives,” the Applicant fails to properly evaluate the risk of choosing a single technology and two extremely large construction projects in lieu of a more modular approach made up of a greater variety of resource options allowing a greater opportunity to change course during implementation of the plan, in the event that risks, known to be potential and those that are not now foreseeable, develop into real difficulties during implementation, and in the event that other superior opportunities become realistic.
- E. With respect to Chapter 10 of the ER, “Proposed Action Consequences,” the Applicant underestimates the impact of its proposed construction and operation on vulnerable customers via rate increases.
- F. With respect to Chapter 10 of the ER, “Proposed Action Consequences,” the Applicant’s cost estimate for construction and operation fails to take into account recent rapid increases in the cost of inputs for construction.
- G. With respect to Chapter 10 of the ER, “Proposed Action Consequences,” the Applicant’s cost estimate for construction and operation is based on an unrealistic schedule, and assumes a settled and approved design for its proposed AP1000, which has not yet been established and for which there is no firm date for Commission determination.⁷³

DISCUSSION: In the “Support” section of Contention 3, Petitioner raises a series of vague and generalized challenges to the adequacy or sufficiency of the information contained in Applicant’s ER.⁷⁴ In substance, these challenges assert that the ER is inadequate or insufficient in one of two ways: it either fails to comply with the NRC’s COLA ER requirements, or fails to comply with the NEPA.⁷⁵

The Commission’s regulations define matters which must be addressed in a COLA-related ER, but they do not specify what constitutes adequate or sufficient content. Thus a contention asserting the inadequacy or insufficiency of the content of the ER cannot succeed as a challenge to an applicant’s compliance with an Agency regulation so long as the ER reasonably addresses the topics that the Agency’s regulations require, as does the COLA under consideration here. The Commission’s regulations do, however, instruct petitioners to file NEPA-related contentions at this stage of the proceeding “based on the applicant’s

⁷³ Sierra Club Petition at 24-26.

⁷⁴ *Id.* at 27-47.

⁷⁵ *Id.*

environmental report.’’⁷⁶ We view this regulatory requirement as an instruction to consider contentions based on the ER as if they were directed at an NRC-generated document intended to satisfy the Agency’s NEPA obligations.

The initial paragraphs of Petitioner’s ‘‘Support’’ section for this contention set out Petitioner’s view of the NEPA requirements and extol the qualifications of its expert, Ms. Brockway.⁷⁷ These paragraphs provide no information that is relevant to our determination regarding the admissibility of this contention, either in the context of the NRC’s requirements for contention admissibility, or from the perspective of the NEPA or COLA ER requirements. Nevertheless, the balance of the section provides some illumination of Petitioner’s position. We address below each of the components of Contention 3 (Parts A-G), Petitioner’s support, and the relevant portions of the Staff’s and Applicant’s Answers.

HOLDING: This contention is, for the reasons set out below, inadmissible.

In Part A, Petitioner asserts that Applicant has not considered the current economic crisis in assessing the need for power, including the possibility of a long and deep economic downturn.⁷⁸ Applicant did, however, consider different economic conditions,⁷⁹ and the assertion therefore can only be successful if it is interpreted to argue that it considered an insufficient impact. Petitioner did not provide any supporting data or analysis to indicate Applicant failed to consider a sufficient economic impact, nor did Petitioner provide any analysis or definitive criticism of Applicant’s analysis or that the magnitude of the impact of the economic crisis on the load forecast was improperly calculated by Applicant so as to be material to the outcome of the Agency’s determination with regard to the license.⁸⁰ Accordingly, although we are aware of the serious nature of the current national economic problems, the contention does not challenge the COLA with any (let alone the requisite) specificity nor provide sufficient information to show that a genuine dispute exists between Petitioner and Applicant on a material issue of fact, and therefore fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(i), (iv), and (vi).

In addition, two other factors would also make inadmissible this portion of Petitioner’s challenges regarding the detail of the load forecast provided in the

⁷⁶ 10 C.F.R. § 2.309(f)(2). The regulation states, ‘‘[o]n issues arising under [NEPA], the petitioner shall file contentions based on the applicant’s [ER]. The petitioner may amend those contentions or file new contentions if there are data or conclusions in the NRC draft or final [EIS] . . . that differ significantly from the data or conclusions in the applicant’s documents.’’ *Id.*

⁷⁷ Sierra Club Petition at 27-29.

⁷⁸ *Id.* at 25.

⁷⁹ SCE&G Answer at 54 (citing ER § 8.1.1).

⁸⁰ Petitioner’s expert, Ms. Brockway, made assertions that Applicant failed to consider the impact of the economic downturn on the amount of power that would be required. However, Ms. Brockway did not quantify the impact on the needed power nor provide any alternative analysis to that provided in the COLA.

ER: (a) the challenges address a level of detail well beyond what is required of the Agency in its analyses⁸¹ and, therefore, such an examination is outside the scope of what is required by the Agency and thereby fails to satisfy the requirements of C.F.R. § 2.309(f)(1)(iii); and (b) Petitioner offers no information to indicate that there is a genuine dispute over an issue that is material to the decision the NRC must make and thus fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(iv).

In Part B, Petitioner asserts that Applicant, in investigating alternatives to the proposed action, ignored demand-side management (DSM) and undervalued “opportunities for cost-effective energy efficiency and demand or load management.”⁸² As to Petitioner’s assertion that Applicant ignored DSM, the ER in fact examined and considered DSM, indicating that a program of this nature “reliably reduces the system’s peak demand by approximately 250 MW of capacity.”⁸³ Thus there is no “omission,” and we turn to Petitioner’s assertion that Applicant has undervalued (i.e., underestimated) the potential contributions from DSM. Analysis of this latter assertion, once again, turns upon NRC policy to defer to Applicant’s stated purpose (to produce baseload power), so long as reasonable alternative means of achieving that specific goal are examined.⁸⁴ As Applicant stated, “the various DSM-related reports and initiatives discussed by Petitioners — which generally cite single-digit percentage gains in energy savings or efficiency — are not a substitute for the over 2000 megawatts-electric of

⁸¹ The Applicant need not provide “burdensome . . . analyses.” Nuclear Energy Institute; Denial of Petition for Rulemaking, 68 Fed. Reg. 55,905, 55,910 (Sept. 29, 2003) (citing *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 88, 94 (1998)). Indeed, as the Commission said on a nearly identical topic, “[q]uibbling over the details of an economic analysis in this situation [amounts to] . . . standing NEPA on its head by asking that the license be rejected not due to environmental costs, but because the economic benefits are not as great as estimated.” *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 145 (2004) (internal quotation marks omitted).

⁸² Sierra Club Petition at 25.

⁸³ SCE&G Answer at 61 (citing ER § 8.1.1.2, at 8.1-5).

⁸⁴ In 10 C.F.R. § 51.45(b)(3), the NRC’s regulations adopt NEPA’s requirement that an agency consider alternatives that are “appropriate alternatives to recommended courses of action.” 42 U.S.C. § 4332(2)(E). A reviewing agency determines whether an alternative is “appropriate” by looking at the objectives (i.e., purpose and need) of a project sponsor. See *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C. Cir. 1991). So long as the applicant has “not set forth an unreasonably narrow objective of its project,” see 68 Fed. Reg. at 55,910, the NRC adheres to the principle that “when the purpose is to accomplish one thing, it makes no sense to consider alternative ways by which another thing might be accomplished.” *Citizens Against Burlington*, 938 F.2d at 195 (citing *City of Angoon*, 803 F.2d 1016, 1021 (9th Cir. 1986)). In the instant proceeding, the Applicant has selected baseload generation as its project purpose, and has examined several alternative ways of achieving that goal. NRC precedent dictates that we defer to that stated goal and, in these circumstances, find that challenges to an alternatives examination that assert a requirement to examine methods of achieving another goal are outside the scope of this proceeding and not material to the decision the NRC must make.

baseload generating capacity that SCE&G seeks to install at VCSNS.’’⁸⁵ Because a DSM program is not a substitute for the addition of baseload power, which is the accepted project purpose, this challenge raises matters outside the scope of this proceeding, thus failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(iii), and raises matters that are not material to the determination the NRC must make, thus failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(iv).⁸⁶

At their root, all of the challenges set out in Parts B, C, and D are challenges to Applicant’s selected project purpose to add baseload power generation, all asserting, in one way or another, that there are other ways not examined by Applicant to achieve (or eliminate the need for) additional generation. But the Commission is clear that such alternatives need not be considered in performance of its NEPA alternatives examination.⁸⁷ Moreover, none of these challenges raises any explicit challenge to the analyses set out in the ER that Applicant indicates

⁸⁵ SCE&G Answer at 62.

⁸⁶ We note that in *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801 (2005), the Commission affirmed the Clinton ESP Licensing Board’s rejection of a similar assertion of error regarding DSM analysis, saying

We agree with the Board that energy conservation or efficiency — or, as it is sometimes called, “demand side management” — is not a reasonable alternative that would advance the goals of the Exelon project. . . . Intervenor complain that the Board “blindly adopted” Exelon’s goal of creating baseload power in defining the scope of the project. . . . Energy efficiency would be a possible “alternative” to the project only if the project’s purpose was recast (as Intervenor would have it) as meeting “future energy needs in the area.” . . .

The Board cited extensive case law supporting the proposition that a reviewing agency should take into account the applicant’s goals for the project. . . . The lead case is *Citizens Against Burlington v. Busey*, [938 F.2d 190 (D.C. Cir. 1991)], where the D.C. Circuit held that “[a]n agency cannot redefine the goals of the proposal that arouses the call for action; it must evaluate the alternative ways of achieving its goals, shaped by the application at issue and by the function that the agency plays in the decisional process.” [*Id.* at 199.] “When the purpose is to accomplish one thing . . . it makes no sense to consider the alternative ways by which another thing might be achieved.” [*Id.* at 195.]

Here, the Board rightly stressed that neither the NRC nor Exelon has the mission (or power) to implement a general societal interest in “energy efficiency.” . . . Thus, while it makes some sense to inquire into various nonnuclear options for generating power — and Exelon and the NRC staff have done so — the NEPA “rule of reason” does not demand an analysis of what the Board called the “general goal” of energy efficiency. . . .

. . . [I]t is reasonable here to confine the inquiry to potential sources of power. Exelon and the NRC Staff were not obliged to examine general efficiency or conservation proposals that would do nothing to satisfy this particular project’s goals.

Clinton, CLI-05-29, 62 NRC at 806-08.

We see the present COLA challenge as directly analogous to the situation in *Clinton*, and see the Commission’s ruling therein as affirming the conclusion there, and mandating our conclusion here, that DSM need not be considered an alternative to the generation of baseload power.

⁸⁷ See *supra* note 84.

could meet its stated need for baseload power, thereby failing to satisfy 10 C.F.R. § 2.309(f)(1)(vi). Nor does Petitioner provide any support for the proposition that the alternatives it suggests are reasonable means by which to generate baseload power. Therefore, the assertion, that failure to consider those alternatives is a flaw in the ER, fails to satisfy the requirement for support set out in 10 C.F.R. § 2.309(f)(1)(vi).

In Part C, Petitioner asserts that “SCE&G dismisses the potential of renewable sources of power, such as solar, wind, [and] biomass to contribute substantially to meeting its future need for resources.”⁸⁸ Petitioner further identifies the allegedly insufficient criteria employed by Applicant in assessing the viable alternative technologies.⁸⁹ To the extent that this constitutes a challenge to Applicant’s selected project purpose to generate baseload power, such a challenge is, as we said above, inadmissible; therefore, we examine this challenge as one to the alternatives analyses contained in the ER.

As we observed above, the NRC defers to Applicant’s stated purpose so long as that purpose is not so narrow as to eliminate alternatives. In this instance, Applicant considered and examined in the ER a number of reasonable alternative ways to generate baseload power. In fact, Applicant’s ER considered and examined precisely those renewable sources of power that Petitioner extols here (wind, solar, and biomass) and determined that those sources, individually or in combination, cannot meet the identified purpose of the proposed action, which is to develop approximately 2000 megawatts of baseload electrical generation. Thus no “omission” regarding these alternatives is present. As to the possibility that this is an asserted error (defect) in the analysis, no specific error is pointed to in Applicant’s analysis, nor is Applicant’s conclusion that Petitioner’s proposed alternatives cannot generate baseload power challenged by Petitioner. For the foregoing reasons, Part C fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi).

In Part D, Petitioner’s substantive assertion is that “the Applicant fails to properly evaluate the risk of choosing a single technology and two extremely large construction projects in lieu of a more modular approach made up of a greater variety of resource options.”⁹⁰ Petitioner’s concern about assessment of “risk” can only be relevant to our deliberations if we consider it to be an attack on Applicant’s selected project purpose or an assertion that there are other alternatives Applicant must examine. In either case, this challenge fails. As we noted several times above, Applicant’s project purpose is an acceptable election in this instance. With regard to the latter proposition, an applicant is not required

⁸⁸ Sierra Club Petition at 39.

⁸⁹ *Id.*

⁹⁰ *Id.* at 42.

to examine all possible alternatives, but only those that can reasonably accomplish its elected purpose.⁹¹

As to the “risk”-related components of this contention, which present a challenge to the project costs, costs for a project are relevant for the determination only if an environmentally preferable option is identified,⁹² which is not the case here. Similarly, to the extent that this amounts to a challenge to the sensibility of Applicant’s commercial business decision to build a single large generation facility rather than an aggregation of smaller similar or dissimilar facilities, “the NRC is not in the business of regulating the market strategies of licensees . . . and leave[s] to licensees the ongoing business decisions that relate to costs and profit.”⁹³ As the United States Court of Appeals for the District of Columbia Circuit put it, federal agencies are not required under NEPA “to canvas . . . business choices,” having “neither the expertise nor the proper incentive structure to do so.”⁹⁴

As Applicant identified, “ER Section 9.2.2.12 contains the pertinent evaluation[s]” of “combinations of energy sources as alternatives to the construction and operation of proposed VCSNS Units 2 and 3,” and none of those evaluations are controverted by Petitioner.⁹⁵ Petitioner thus fails to contradict any specific part of the ER or the COLA, thereby failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi). To the extent this might be construed to be asserting an omission, Applicant did, in fact, look at a variety of alternative combinations, and therefore no omission exists. To the extent that Petitioner asserts in this contention that Applicant had an obligation to examine other (modular) alternatives, the obligation falls squarely upon Petitioner to specify such alternatives and indicate why they are appropriate,⁹⁶ and Petitioner has identified no such alternative with any particularity. Thus, Petitioner fails to satisfy 10 C.F.R. § 2.309(f)(1)(vi).

In Part E, Petitioner asserts that “the Applicant underestimates the impact of its proposed construction and operation on vulnerable customers via rate increases.”⁹⁷ The issue of future rates for Applicant’s customers is outside the purview of the NRC because the issue of electric rates is, as Applicant succinctly put it, “germane to protection of the ‘public interest’ as opposed to public

⁹¹ *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 551 (1978).

⁹² *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 163 (1978).

⁹³ *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 726 (2005) (citation omitted).

⁹⁴ *Citizens Against Burlington*, 938 F.2d at 197 n.6.

⁹⁵ SCE&G Answer at 70.

⁹⁶ *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-05-19, 62 NRC 134, 158 (2005).

⁹⁷ Sierra Club Petition at 42.

health and safety or the environment.’⁹⁸ NEPA charges a federal agency with weighing the environmental effects and impacts of the proposed project and its alternatives against each other and balancing those effects against the benefits of each such project.⁹⁹ Thus Part E fails to raise a matter that is within the scope of this proceeding, thereby failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(iii), and fails to provide information that indicates that there is a genuine dispute with Applicant on a material issue of law or fact, thereby failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi).

Parts F and G of the ‘‘Support’’ section of this contention raise issues regarding the costs of the proposed project. In Part F, Petitioner asserts that ‘‘the Applicant’s cost estimate for construction and operation fails to take into account recent rapid increases in the cost of inputs for construction,’’¹⁰⁰ while in Part G Petitioner asserts that ‘‘the Applicant’s cost estimate for construction and operation is based on an unrealistic schedule, and assumes a settled and approved design for its proposed AP1000, which has not yet been established and for which there is no firm date for Commission determination.’’¹⁰¹ The accuracy of project cost estimates only becomes relevant if an environmentally preferable alternative has been identified.¹⁰² In the present situation, since neither the Applicant’s ER nor Petitioner’s petition identifies an alternative that is preferable from the perspective of its environmental impacts, the cost of the proposed project (and therefore the accuracy of the estimates thereof) is irrelevant to the decision the NRC must make. For the foregoing reasons, Parts F and G fail to demonstrate that the matters they raise are material to the decision the NRC must make, thereby failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(iv), and fail to demonstrate that the matters raised are within the scope of this proceeding, thereby failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(iii).

⁹⁸ SCE&G Answer at 71.

⁹⁹ As Applicant succinctly points out, this is not a cost/benefit analysis, but a balancing of the environmental effects of the proposed action and the alternatives determined to be reasonable (in light of the sponsor’s selected purpose), against the benefits of each thereof. SCE&G Answer at 48-49. The Commission is consummately clear that its obligations under NEPA focus on ‘‘the adjective ‘environmental,’’’ and ‘‘NEPA does not require the agency to assess every impact or effect . . . , but only the impact or effect on the environment.’’ *Claiborne*, CLI-98-3, 47 NRC at 88 (citing *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 772 (1983)).

¹⁰⁰ Sierra Club Petition at 26.

¹⁰¹ *Id.*

¹⁰² We agree with the analysis of the Board in the Shearon Harris COL proceeding that found that ‘‘Commission precedent establishes that NEPA requires an Applicant to present . . . cost-benefit analysis . . . *only* where the Applicant’s alternatives analysis indicates that there is an environmentally preferable alternative.’’ *Shearon Harris*, LBP-08-21, 68 NRC at 576.

III. CONCLUSION

While Sierra Club has standing to participate, neither FOE nor Mr. Wojcicki has satisfied the Agency's requirements for standing. Furthermore, neither the joint petition submitted by Sierra Club and FOE nor the petition submitted by Mr. Wojcicki presents an admissible contention. Accordingly, (a) SC ORS's unopposed request to participate in any hearing as an interested government entity is moot, (b) SCE&G's motions¹⁰³ to strike portions of the replies filed by Sierra Club and FOE and Mr. Wojcicki are denied as moot, and (c) Mr. Wojcicki's motion¹⁰⁴ opposing SCE&G's motion to strike is denied as moot.

IV. ORDER

For the foregoing reasons, it is, this 18th day of February 2009, ORDERED that:

1. The Joint Petition to Intervene and Request for Hearing from Sierra Club and Friends of the Earth is DENIED.
2. The Petition to Intervene and Request for Hearing from Mr. Wojcicki is DENIED.
3. SC ORS's unopposed Request for an Opportunity to Participate in any Hearing is DENIED as moot.
4. SCE&G's Motion to Strike Portions of Sierra Club's and Friends of the Earth Petition is DENIED as moot.
5. SCE&G's Motion to Strike Portions of Mr. Wojcicki's Petition is DENIED as moot.
6. Mr. Wojcicki's Motion to Deny SCE&G's Motion to Strike is DENIED as moot.

¹⁰³ [SCE&G] Motion to Strike Portions of the Sierra Club and Friends of the Earth Reply (Jan. 22, 2009); [SCE&G] Motion to Strike Portions of Joseph Wojcicki's Reply (Jan. 16, 2009).

¹⁰⁴ The Joseph Wojcicki's Motion to Deny [SCE&G] Motion to Strike Portions of Joseph Wojcicki's Reply (Jan. 21, 2009).

7. In accordance with the provisions of 10 C.F.R. § 2.311, any appeal to the Commission from this Memorandum and Order must be taken within ten (10) days after it is served.

THE ATOMIC SAFETY AND
LICENSING BOARD¹⁰⁵

Dr. Paul B. Abramson, Chairman
ADMINISTRATIVE JUDGE

Dr. Michael F. Kennedy
ADMINISTRATIVE JUDGE

Dr. Jeffrey D. E. Jeffries
ADMINISTRATIVE JUDGE

Rockville, Maryland
February 18, 2009

¹⁰⁵ A copy of this Memorandum and Order was sent this date by the Agency's E-Filing System to: (1) Counsel for the Staff; (2) Counsel for SCE&G; (3) Sierra Club and Friends of the Earth; (4) SC ORS; and (5) Joseph Wojcicki.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Dale E. Klein, Chairman
Gregory B. Jaczko
Peter B. Lyons
Kristine L. Svinicki

In the Matter of

Docket No. 50-423-OLA

DOMINION NUCLEAR CONNECTICUT, INC.
(Millstone Nuclear Power Station,
Unit 3)

March 5, 2009

PLEADINGS

Commission regulations do not contemplate filing a vague, unsupported pleading as a “placeholder” for a more detailed pleading to follow. Such a filing would be tantamount to a “notice pleading,” expressly prohibited by our rules of practice. *See Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 414 (2007), citing *Port Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 295 (2000).

PLEADINGS

Petitioner’s argument that a “new” contention must only meet the requirements for a new contention found in 10 C.F.R. § 2.309(f)(2), and need not meet the contention admissibility standards themselves, found in 10 C.F.R. § 2.309 (f)(1)(i)-(vi), is simply incorrect. The plain language of the rule requires each proposed contention to satisfy those requirements. *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1, 6 (2008).

MOTIONS TO REOPEN

Generally, once there has been an appeal or petition to review a Board order ruling on intervention petitions (or, where a hearing is granted, following a partial or final initial decision), jurisdiction passes to the Commission, including jurisdiction to consider any motion to reopen. *See Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), CLI-00-25, 52 NRC 355, 357 (2000); *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-823, 22 NRC 773 (1985).

MOTIONS TO REOPEN

A referral by the Secretary of Petitioner's motion to admit a late-filed contention effectively returned jurisdiction to the Board to rule on the motion. The Secretary's referral did not, however, reopen the already-closed record.

TERMINATION OF PROCEEDING

Issuance of a license amendment did not terminate the adjudicatory proceedings; proceedings on license amendments continue until they are over, even if the amendment is issued in the interim.

MOTIONS TO REOPEN

While only a "party" to a proceeding may move to reopen a closed record, this does not mean that a petitioner who was never admitted as a party is excused from meeting the reopening standard. Commission rules of practice make it clear that the reopening standards — as well as the late intervention standards — must be met when an entirely new issue is sought to be introduced after the closing of the record. *See* 10 C.F.R. § 2.326(d).

MEMORANDUM AND ORDER

Before us is an appeal by the Connecticut Coalition Against Millstone and Nancy Burton (collectively, CCAM) of an Atomic Safety and Licensing Board order rejecting its attempt to admit late-filed contentions in the captioned proceeding.¹ The Board found that CCAM had not provided justification for reopening

¹Memorandum and Order (Ruling on Motions to File New or Amended Contentions) (unpublished) (Oct. 27, 2008) (October 27 Order).

the record in this matter, nor had they addressed factors that allow for filing late contentions under our rules of practice. In addition, the Board found that the proposed new contentions were not supported, regardless of when they were submitted. Both the NRC Staff and the licensee, Dominion Nuclear Connecticut, Inc. (Dominion), oppose CCAM's appeal. We affirm the Board's decision to reject the late-filed contentions.

I. CHRONOLOGY OF THE CASE

This is the second appeal from CCAM that the Commission has considered in this proceeding.

In July 2007, Dominion sought an operating license amendment to increase the authorized core power level from 3411 to 3650 megawatts thermal at the Millstone Power Station, Unit 3, in Waterford, Connecticut. CCAM filed a timely petition to intervene and hearing request on nine proposed contentions.² The Board issued a Memorandum and Order, LBP-08-9,³ denying a hearing on the ground that CCAM had not offered an admissible contention. CCAM appealed that decision.⁴

On July 18, 2008, while CCAM's appeal was pending before us, CCAM filed a motion before the Board for leave to file new contentions.⁵ The motion provided a brief description of six contentions CCAM planned to file and support in a future pleading. CCAM claimed that it had only recently become aware of "new" information, on which the proposed contentions would be grounded, when its representative attended a July meeting of the Advisory Committee on Reactor Safeguards (ACRS). CCAM outlined six issues, which it claimed were raised by information at the ACRS meeting:

- (1) temperature spikes in the hot legs of the reactor;
- (2) increase of fluence on the wall of the vessel;
- (3) use of AST [alternate source term] assumptions AND [sic] Reg. Guide 1.82 assumptions related to dose-after-an-accident;
- (4) steam generator tube repair;
- (5) gas accumulation/decay heat removal/containment spray systems;
- and (6) a sudden surge in pre-seasonal arrival of jellyfish at Waterford, Connecticut.⁶

² Connecticut Coalition Against Millstone and Nancy Burton Petition to Intervene and Request for Hearing (Mar. 17, 2008).

³ LBP-08-9, 67 NRC 421 (2008).

⁴ Notice of Appeal (June 16, 2008).

⁵ Connecticut Coalition Against Millstone and Nancy Burton Motion for Leave to File and [sic] and/or Amended Contentions Based on Receipt of New Information (July 18, 2008) (July 18 Motion).

⁶ *Id.* at 2.

CCAM requested leave to file the fully supported contentions within 10 days of “receipt” of the ACRS meeting transcript.⁷

Shortly thereafter, the Secretary of the Commission notified CCAM that its motion had not been accepted for docketing because it had not been properly filed through the Commission’s electronic filing system for legal pleadings.⁸ CCAM, which had previously been granted a waiver from the electronic filing rule, responded with a request for a continuing waiver and asked that the July 18 motion be accepted *nunc pro tunc*.⁹ On August 7, 2008, CCAM filed a revised motion requesting leave to file new or amended contentions within 30 days of the publication of the ACRS meeting transcript.¹⁰ The August 7 Motion was substantially identical to the July 18 Motion, aside from its request for more time to file new and amended contentions, and a request for a continuing exemption from e-filing.

On August 11, the Secretary of the Commission, pursuant to her authority under 10 C.F.R. § 2.346(i), referred CCAM’s July 31 Motion to the Board “for any action it deems appropriate.”¹¹ The Secretary’s order also stated that any further related pleadings should be directed to the Board. Shortly thereafter, we issued a decision denying CCAM’s appeal of the Board’s initial order denying the hearing request.¹² By then the NRC Staff had already issued the contested license amendment, after finding, as required by rule and statute, “no significant hazards considerations.”¹³

Two weeks later, on August 27, CCAM filed yet another motion, this one

⁷ *Id.*

⁸ E-mail from Emile Julian, Assistant for Rulemakings and Adjudications, Office of the Secretary, Nuclear Regulatory Commission, to Nancy Burton (July 21, 2008, 3:48 EDT). See CLI-06-4, 63 NRC 32, 38-39 (2006), where the Commission directed the Secretary to screen all filings by Ms. Burton and reject any that do not conform to the Commission’s rules of practice, without referring them to the Board or Commission.

⁹ Connecticut Coalition Against Millstone and Nancy Burton Motion for Leave to File Their “Motion for Leave to File New and/or Amended Contentions Based on Receipt of New Information” Dated July 18, 2008 *Nunc Pro Tunc* and for Continuing Waiver of Electronic Filing (July 31, 2008) (July 31 Motion).

¹⁰ Connecticut Coalition Against Millstone and Nancy Burton Motion for Leave to File Their New And/or Amended Contentions Based on Receipt of New Information and for Continuing Waiver of Electronic Filing (Aug. 7, 2008) (August 7 Motion).

¹¹ Order (Aug. 11, 2008) (unpublished).

¹² CLI-08-17, 68 NRC 231 (2008).

¹³ See Dominion Nuclear Connecticut, Inc.; Notice of Issuance of Amendment to Facility Operating License and Final Determination of No Significant Hazards Consideration, 73 Fed. Reg. 49,922 (Aug. 20, 2008).

containing two proposed new contentions.¹⁴ One of the proposed new contentions — concerning the temperature spikes in the hot legs of the reactor — related to one of the six issues cited in CCAM’s earlier motions. The other proposed contention generally asserted that the NRC Staff’s review of the application did not “comply with mandatory legal standards set forth in NRC’s Review Standard for Extended Power Uprates.”¹⁵

On October 27, 2008, the Board ruled on the various related motions. The Board denied CCAM’s request to reinstate the July 18 Motion, but granted CCAM’s request for a continuing waiver of NRC’s e-filing requirements.¹⁶ The Board further found that CCAM’s “placeholder” motion did not eliminate the requirement to file a motion to reopen the record pursuant to 10 C.F.R. § 2.326(a).¹⁷ Finally, with respect to CCAM’s August 27 motion to file two late contentions, the Board ruled that the NRC Staff’s issuance of the license amendment had terminated the adjudicatory proceeding, leaving the Board unable to reopen it and consider the late contentions.¹⁸ The Board also observed that, if it had been able to address the late contentions, it would have ruled them inadmissible for not addressing our reopening requirements and for not meeting our contention admissibility requirements.¹⁹ CCAM now appeals the Board decision rejecting its two late contentions.

II. ANALYSIS

We accord the Board’s judgment at the pleading stage substantial deference.²⁰ CCAM has not presented a plausible case for overturning the Board’s decision. To prevail, CCAM must show that it presented the Board an adequately supported, admissible contention. CCAM must also justify its late filing. Finally, CCAM must demonstrate sufficient cause for reopening a closed record — a standard that it refused to address before the Board. CCAM has done none of these.

¹⁴ Connecticut Coalition Against Millstone and Nancy Burton’s New Contentions and Request for Leave to Submit New Contentions Based on Receipt of New Information and Request for Continuing Waiver of E-filing Requirements (Aug. 27, 2008) (August 27 Motion).

¹⁵ *Id.* at 11.

¹⁶ October 27 Order at 6-7.

¹⁷ The Board also noted that the “prospective contentions” set out in CCAM’s August 7 Motion failed to satisfy the requirements for contention admissibility. *Id.* at 10.

¹⁸ *Id.* at 12.

¹⁹ *Id.*

²⁰ See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 234 (2008); see also *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 104 (2007); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006).

A. The Board’s Rulings on the July 18, July 31, and August 7 Motions

We *affirm* the Board’s rulings on CCAM’s July 18 and July 31 Motions for the reasons the Board gave in its October 27 Order. CCAM’s August 7 Motion apparently was intended to function as a “placeholder” for a further motion to be filed later. But our regulations do not contemplate such filings, which are tantamount to impermissible “notice pleadings.”²¹

We agree with the Board that CCAM’s August 7 “placeholder” motion “did not eliminate the requirement for CCAM to file a motion to reopen the record.”²² The Board correctly determined that because it had already denied the intervention petition, “a motion to file new or amended contentions must address the motion to reopen standards.”²³ In addition, the decision whether to reopen the record was the Board’s to make. Here, this jurisdictional determination turns on the Secretary’s August 11 Order. The Board correctly found that the Secretary’s actions in referring the motions to it had effectively delegated jurisdiction over the motions to the Board.²⁴ Although the *record* was closed, the Board retained jurisdiction over a designated portion of the *proceeding*. The Secretary’s August 11 Order referring the motions to the Board held open the proceeding as to the matters specified in that Order, notwithstanding our subsequent ruling (in CLI-08-17) upholding the Board’s decision to reject CCAM’s original contentions.

Generally, once there has been an appeal or petition to review a Board order ruling on intervention petitions (or, where a hearing is granted, following a partial or final initial decision), jurisdiction passes to the Commission, including jurisdiction to consider any motion to reopen.²⁵ But here, the Secretary’s referral of CCAM’s July 31 Motion (and related motions) to the Board returned jurisdiction

²¹ In its appeal, CCAM also argues that it need not demonstrate compliance with the contention admissibility requirements prior to filing “new” contentions. Notice of Appeal at 7, citing 10 C.F.R. § 2.309(f)(1)(i)-(vi). CCAM is simply incorrect on this point. The plain language of the rule requires each proposed contention to satisfy those requirements. *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1, 6 (2008). *See also Florida Power & Light Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2, et al.), CLI-06-21, 64 NRC 30, 34 (2006); *cf. Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 414 (2007), citing *Port Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 295 (2000) (our pleading standards do not allow for mere “notice pleading,” or the filing of general, vague, or unsupported claims to be elaborated on at some later time).

²² October 27 Order at 9.

²³ *Id.*

²⁴ *Id.* at 5-6 n.22.

²⁵ *See Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), CLI-00-25, 52 NRC 355, 357 (2000); *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-823, 22 NRC 773 (1985).

to the Board.²⁶ The authority given the Board to decide CCAM's motions included, if necessary, the authority to reopen the record of the proceeding, provided the reopening standards were met. Had there been no referral, we would have retained jurisdiction over CCAM's various motions, and the proceeding would have remained alive until we acted. The referral kept the proceeding alive until the Board acted.²⁷

B. The Board's Ruling on the August 27 Motion

We also agree that the Board properly denied CCAM's August 27 Motion — which offered two new contentions. With respect to the particulars of the Board's ruling, however, a few matters merit additional discussion.

1. Issuance of License Amendment Did Not Terminate Proceeding

As an initial matter, we find that the Board erred in holding that the Staff's issuance of the license amendment terminated the proceeding and precluded the Board's reopening of the proceeding to rule on the August 27 Motion. *Comanche Peak*, the 1992 Commission decision on which the Board relied, is inapposite. That proceeding concerned an initial operating license. Under the rules of practice in place at that time, the intervenor was entitled to a hearing *prior to* issuance of the license.²⁸ By contrast, the rules of practice governing this license amendment proceeding expressly contemplate prompt Staff action on an application, notwithstanding the pendency of any adjudicatory proceeding,

²⁶ We further observe that, while the Secretary's August 11 referral held the proceeding open while the Board considered appropriate action, it did not operate to reopen the closed record. Whether the reopening standard is met requires a legal determination that is not within the scope of the Secretary's limited authority, and which the referral did not purport to make. *See generally* 10 C.F.R. § 2.346.

²⁷ We by no means encourage eleventh-hour motions filed in an effort to prolong an adjudication. Following the termination of a proceeding, as the Board correctly notes, the proper avenue for a person challenging an existing license is to file a request to modify, suspend, or revoke a license. October 27 Order at 11-12; *see generally* 10 C.F.R. § 2.206. *Cf. Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 24 (2006) (after "final agency decision," the Commission retained jurisdiction to consider a reopening motion, as opposed to a section 2.206 action, because the license had not yet issued).

²⁸ *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-12, 36 NRC 62, 67 (1992); *see also Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-1, 37 NRC 1, 3 (1993) (while issuance of a full-power license "closed out" the notice of opportunity for hearing for Comanche Peak Unit 1, issuance of a low-power license did not terminate the proceeding for Unit 2).

subject to certain identified exceptions, that do not apply here.²⁹ The bottom line is that adjudicatory proceedings on license amendments continue until they are over, even if the amendment is issued in the interim.

In any event, the Board provides “further observations” stating alternate grounds for rejecting CCAM’s August 27 Motion, which are more than sufficient to justify its ultimate result. As discussed below, we affirm the Board’s ruling on the basis of those alternate grounds.

2. CCAM’s Proposed Contentions Failed to Satisfy Our Contention Admissibility Requirements

We agree with the Board that CCAM did not proffer an admissible contention. The requirements for contention admissibility are described in our rules of practice³⁰ and are well known to CCAM, which has participated in numerous NRC adjudicatory proceedings.³¹ To be admitted for hearing, a contention must meet the following standards: provide a specific statement of the law or facts in dispute; explain the basis for its contention; show that the contention is within the scope of the proceeding and material to the findings that the NRC must make in order to support the action involved in the proceeding; and provide a statement of the facts or expert opinion which support the contention.³² As we recently reminded CCAM, petitioners may not “skirt our contention rules by initially

²⁹ 10 C.F.R. § 2.1202(a). Further, 10 C.F.R. § 2.1210(c)(3) expressly provides for the circumstance in which a licensing action is taken prior to completion of a hearing. The presiding officer’s initial decision must include the action the Staff shall take upon transmission of the decision, if the initial decision is inconsistent with Staff action on the application. Although a hearing was not granted in this case, we expect the Staff to likewise act on an application notwithstanding the pendency of hearing requests — be they timely or late-filed.

In addition, our regulations in 10 C.F.R. Part 50 have long contemplated issuance of a license amendment notwithstanding the pendency of an adjudicatory hearing, provided that the Staff makes certain required findings. *See* 10 C.F.R. § 50.91(a)(4) (permitting the Staff to issue an amendment to a reactor operating license notwithstanding the pendency of an adjudicatory hearing if it determines that the licensing action involves “no significant hazards consideration”); Atomic Energy Act of 1954, as amended, § 189a(2)(A), 42 U.S.C. § 2239a(2)(A). The Staff issued a final no significant hazards consideration determination contemporaneously with issuance of the license amendment on August 12. NRC’s issuance of a license amendment, after finding no significant hazards consideration, does not terminate an adjudicatory proceeding, but simply gives effect to the amendment prior to completion of the proceeding, and subject to the result of the proceeding.

³⁰ 10 C.F.R. § 2.309(f).

³¹ *See* CLI-08-17, 68 NRC at 234. *See generally* *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 644 n.56 (2004).

³² *See generally* 10 C.F.R. § 2.309(f)(1)(i)-(vi).

filing unsupported contentions, and later recasting or modifying their contentions on appeal with new arguments never raised before the Board.”³³

The contentions proffered in CCAM’s August 27 Motion did not meet these standards. With respect to “new” Contention 1, concerning “temperature spikes in the hot legs” of the reactor, the Board observed that the temperature spikes at issue had been discussed in the initial license amendment application.³⁴ Therefore, in addition to being inexcusably late,³⁵ the proposed contention failed to address the information in the application and show a genuine dispute thereon.³⁶

The Board noted that Contention 2 was “essentially a repackaged original Contention 6,” which both the Board and the Commission had already rejected. As originally proffered, Contention 6 argued that the Staff’s review was inadequate because the Staff has not adopted “regulatory standards” for its review of stretch power uprates.³⁷ The Board disapproved that argument in LBP-08-9 and we affirmed the Board’s ruling in CLI-08-17, 2 weeks prior to CCAM’s August 27 Motion.³⁸

“New” Contention 2 stated that the NRC Staff’s review of the application “does not comply with mandatory legal standards set forth in the NRC’s ”Review Standard for Extended Power Uprates.” According to declaration of CCAM’s expert, the ACRS transcript showed that the NRC Staff failed to perform a confirmatory analysis of certain calculations relating to the containment. CCAM maintained that this demonstrates the Staff’s failure to comply with the review standard applicable for “extended power uprates.” But this dispute over the standards guiding the Staff’s review has already been addressed, and fails now for the reasons stated by the Board in LBP-08-9, and affirmed by us in CLI-08-17.³⁹

In short, we agree with the Board’s observations that neither of CCAM’s proposed “new” contentions satisfied the requirements of our contention admissibility regulations.

³³ *Millstone*, CLI-08-17, 68 NRC at 234, citing *USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 458 (2006); *Louisiana Energy Services, L.P. (National Enrichment Facility)*, CLI-04-35, 60 NRC 619, 622-23 (2004); *see also* 10 C.F.R. § 2.309(f)(2).

³⁴ October 27 Order at 13, citing License Amendment Request, Attachment 5, SPU Licensing Report, at 2.4-10 (ADAMS Accession No. ML072000400).

³⁵ *See* discussion *infra* Section II.B.4.

³⁶ *See* 10 C.F.R. § 2.309(f)(1)(vi). The Board observed that this contention was identical to “prospective contention” 1 in CCAM’s July 18 and August 7 Motions. October 27 Order at 13.

³⁷ *See* CLI-08-17, 68 NRC 241-42.

³⁸ *Id.*

³⁹ *See* LBP-08-9, 67 NRC at 433-36; CLI-08-17, 68 NRC 237. In any event, “new” Contention 2 would necessarily fail because it attacks the quality of the Staff’s review rather than identifying a deficiency in the application. *Id.* at 237-38. *See also Pa’ina Hawaii, LLC*, CLI-08-3, 67 NRC 151, 168 n.73 (2008); *Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3)*, CLI-99-11, 49 NRC 328, 334 (1999).

3. *CCAM Failed to Meet the Applicable Reopening Standards*

Even had CCAM's contentions passed muster under 10 C.F.R. § 2.309(f)(1), its motion would still fail for failing to address, let alone meet, our reopening standards. CCAM was never admitted as a party to this license amendment proceeding and argues, therefore, that it need not file a motion to reopen.⁴⁰ CCAM is correct in noting that we once held that only a "party" to a proceeding may move to reopen a closed record.⁴¹ But in a subsequent decision,⁴² we indicated that a nonparty seeking late intervention after the record has closed must address both the standard for late intervention and the standard for reopening a closed record⁴³ In addition, our rules of practice make it clear that the reopening standards — as well as the late intervention standards — must be met when an entirely new issue is sought to be introduced after the closing of the record.⁴⁴ The appropriate mechanism, therefore, for CCAM to have sought to raise a new issue where, as here, the record of the proceeding had closed upon the Board's disposition of CCAM's original contentions (LBP-08-9) was to address the reopening standards contemporaneously with a late-filed intervention petition, which must satisfy the standards for both contention admissibility and late filing.⁴⁵ CCAM did neither of these. We briefly consider each of these requirements in turn and find that, even had CCAM addressed the proper standards, its motion would not have succeeded.

As discussed above with respect to CCAM's August 7 Motion, CCAM was required to address successfully the reopening standards in 10 C.F.R. § 2.326 in order to litigate the new contentions proffered in its August 27 Motion. To reopen a closed record, the movant must show that its motion is timely⁴⁶ and addresses a "significant safety or environmental issue,"⁴⁷ and that a "materially different result would be or would have been likely had the newly proffered evidence been considered initially."⁴⁸

⁴⁰ Notice of Appeal at 7-8.

⁴¹ See *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-1, 35 NRC 1, 6 (1992).

⁴² *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-4, 37 NRC 156, 161-62 (1993).

⁴³ *Id.* at 161 n.1.

⁴⁴ 10 C.F.R. § 2.326(d).

⁴⁵ See generally 10 C.F.R. §§ 2.309(c), 2.309(f)(1), and 2.309(f)(2). In LBP-08-9, the Board found CCAM had demonstrated standing; therefore, CCAM would not be required to address those standards anew. 67 NRC at 427-29.

⁴⁶ 10 C.F.R. § 2.326(a)(1). The rules provide that an "exceptionally grave" issue may be considered in the discretion of the presiding officer, even if untimely presented. *Id.*

⁴⁷ 10 C.F.R. § 2.326(a)(2).

⁴⁸ 10 C.F.R. § 2.326(a)(3). In addition, the motion must be accompanied by the factual and/or technical basis for the movant's claims, in affidavit form. 10 C.F.R. § 2.326(b).

CCAM did not address these standards before the Board or in its appeal. Even had CCAM addressed the reopening standards, however, we find that it would not have met them.

With respect to Contention 1, as discussed above, the Board found that CCAM's claims were not timely because the information on which CCAM relied was in the application from the outset.⁴⁹ As noted by the Board, information regarding the duration of temperature variations in the hot leg was available in the initial application, and could have been raised in CCAM's initial filing.⁵⁰ CCAM did not argue, and we do not find, that the information discussed at the August ACRS meeting was new at the time of the meeting, or that its consideration likely would have led to a materially different result with regard to issuance of the license amendment.⁵¹

Similarly, Contention 2, which inappropriately faults the Staff's review as inadequate, fails to meet this standard. We agree with the Board that this proposed contention, in essence, raises issues that CCAM attempted to raise in its original Contention 6.⁵² For the reasons articulated by the Board, this proposed contention also fails to meet the reopening standards, and is therefore not litigable in this proceeding.⁵³

4. CCAM Did Not Justify the Lateness of Its Proposed New Contentions

Where the new material sought to be introduced in a motion to reopen does not deal with a matter previously in controversy, the person moving to reopen the record must also meet the standards in 10 C.F.R. § 2.309(c) for filing untimely contentions.⁵⁴ That provision sets forth eight factors, the most important of which is "good cause" for the failure to file on time.⁵⁵ Good cause has long been

⁴⁹ October 27 Order at 12-13.

⁵⁰ *Id.* at 13 & n.52.

⁵¹ In addition, CCAM's expert, Mr. Gundersen, does not explain how the temperature spikes present an "exceptionally grave" safety or environmental issue, and we find nothing in the August 27 Motion that indicates such an issue associated with the proposed "hot leg" contention.

⁵² October 27 Order at 14, citing LBP-08-9, 67 NRC at 443-44; CLI-08-17, 68 NRC at 241-42.

⁵³ October 27 Order at 12-14. Here again, CCAM's expert does not articulate any specific environmental or safety risk, let alone a "serious" or "grave" risk, that would cause us to reconsider this issue notwithstanding its untimeliness.

⁵⁴ 10 C.F.R. § 2.326(d).

⁵⁵ *Diablo Canyon*, CLI-08-1, 67 NRC at 6.

interpreted to mean that the information on which the proposed new contention is based was not previously available.⁵⁶

In its July 18 and August 7 Motions, CCAM claimed that the criteria for “new or amended” contentions found in 10 C.F.R. § 2.309(f)(2) were satisfied because CCAM did not become aware of the six new issues until its representative attended the ACRS meeting.⁵⁷ In its August 27 Motion, CCAM did not address the late-filing criteria in either 10 C.F.R. § 2.309(c) or 10 C.F.R. § 2.309(f)(2). The Board correctly found that failure to address the requirements was reason enough to reject the proposed new contentions.⁵⁸ On appeal, CCAM attempts to make a case that its proposed new contentions are not untimely because they are based on new information — which would establish good cause — and does not address the remaining factors in 10 C.F.R. § 2.309(c).⁵⁹ In any event, however, we need not consider these remaining factors because CCAM has failed to articulate good cause for late filing.

CCAM did not justify its untimely attempt to raise these new issues. To show good cause, a petitioner must show that the information on which the new contention is based was not *reasonably available to the public*, not merely that the *petitioner* recently found out about it. For the reasons noted by the Board, CCAM has failed to demonstrate good cause, as the information it relied upon was available earlier, and “is not new information merely because CCAM was not aware of it earlier.”⁶⁰

We conclude that neither of the two proposed contentions meets the applicable late-filing standards.

III. CONCLUSION

For the foregoing reasons, CCAM’s appeal is *denied*, and the Board’s decision is *affirmed* on the grounds articulated by the Board, and set forth above.

⁵⁶ See, e.g., *id.* See also *Comanche Peak*, CLI-93-4, 37 NRC at 164-65, citing *Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 2), ALAB-707, 16 NRC 1760, 1764-65 (1982) (information “in the public domain” for 6 months did not establish “good cause” for late filing).

⁵⁷ None of the other factors in 10 C.F.R. § 2.309(c) or 10 C.F.R. § 2.309(f)(2) were addressed in these two CCAM motions.

⁵⁸ October 27 Order at 12. See, e.g., *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 347-48 (1998).

⁵⁹ Notice of Appeal at 5-6.

⁶⁰ October 27 Order at 13.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 5th day of March 2009.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Dale E. Klein, Chairman
Gregory B. Jaczko
Peter B. Lyons
Kristine L. Svinicki

In the Matter of

**Docket Nos. 50-247-LR
50-286-LR**

**ENTERGY NUCLEAR OPERATIONS, INC.
(Indian Point, Units 2 and 3)**

March 5, 2009

The Commission denies a petition for reconsideration.

RULES OF PRACTICE: INTERLOCUTORY REVIEW

The Commission grants discretionary interlocutory review only in extraordinary circumstances.

RULES OF PRACTICE: INTERLOCUTORY REVIEW (EXPENSE AND DELAY)

The Commission's decisions have repeatedly held that increased litigation delay and expense do not justify interlocutory review of an admissibility decision. Absent highly unusual circumstances, the Commission has consistently declined to conduct interlocutory review of contention admissibility decisions.

RULES OF PRACTICE: INTERLOCUTORY REVIEW (EXPENSE AND DELAY)

When the Commission abolished the Appeal Board in 1991 and established a new appellate structure for reviewing presiding officers' decisions, the Commis-

sion codified in 10 C.F.R. § 2.786(g) the existing standard governing interlocutory review pursuant to 10 C.F.R. § 2.718(i) and 2.730(f). In 2004, the Commission again revised its rules of practice, retaining this provision in the context of referrals and certifications to the Commission. 10 C.F.R. § 2.323(f)(1) (2008) (providing that the presiding officer may refer a ruling to the Commission if, in the presiding officer’s judgment, “prompt decision is necessary to prevent detriment to the public interest or *unusual delay or expense*,” or if the ruling involves a novel issue that “merits Commission review at the earliest opportunity”). This standard does not apply, however, to petitions for interlocutory review. Those are governed by section 2.341(f)(2).

RULES OF PRACTICE: INTERLOCUTORY REVIEW (EXPENSE AND DELAY)

The Commission has found no instance in NRC jurisprudence where either the Commission or its boards have ruled that expenses of any kind constituted “irreparable injury.” This issue arises most frequently in situations where a movant for a stay or interlocutory review claims “irreparable injury” based on excessive or unnecessary litigation expenses. The Commission has uniformly rejected such arguments.

RULES OF PRACTICE: INTERLOCUTORY REVIEW (EXPENSE AND DELAY)

The potential for litigation expense and delay is the kind of burden that licensees and applicants voluntarily assume when filing applications with the Commission.

RULES OF PRACTICE: DISCOVERY

To the extent Entergy may be subject to unreasonable or burdensome discovery requests in the future, it is free to seek relief from the Board, which has ample authority to prevent or modify unreasonable discovery demands.

RULES OF PRACTICE: INTERLOCUTORY REVIEW (BASIC STRUCTURE OF PROCEEDING)

Litigation efforts that a litigant considers unnecessary because they relate to a contention that the litigant considers to have been improperly admitted do not “affect the basic structure of this proceeding” at all — much less in “a pervasive and unusual manner.” Indeed, were the Commission to permit

litigants to successfully invoke interlocutory review based merely on an assertion that the licensing board erred in admitting (or excluding) a contention, then the Commission would be opening the floodgates to a potential deluge of interlocutory appeals from any number of participants who lose admissibility rulings. This would eviscerate the Commission's longstanding policy disfavoring interlocutory appeals.

RULES OF PRACTICE: INTERLOCUTORY APPEALS (AS OF RIGHT)

In situations in which a board denies a petition to intervene in its entirety or grants a petition to intervene that, according to an opposing litigant, should have been denied in its entirety, the losing litigant has a right to Commission review under 10 C.F.R. § 2.311(b) or (c).

RULES OF PRACTICE: INTERLOCUTORY REVIEW

“The possibility that an interlocutory ruling may be wrong does not in itself justify interlocutory review.” *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-1, 53 NRC 1, 5 (2001), citing *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-11, 40 NRC 55, 61 (1994). “Incorrect interlocutory rulings may be reviewed, if necessary, on appeals from partial initial decisions or other final appealable orders.” *Private Fuel Storage*, CLI-01-1, 53 NRC at 5, citing *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-2, 51 NRC 77, 80 (2000).

RULES OF PRACTICE: SUA SPONTE REVIEW

“[T]he Commission itself may exercise its discretion to review a licensing board's interlocutory order if the *Commission* wants to address a novel or important issue However, the Commission's decision to do so in any particular proceeding stems from its inherent supervisory authority over adjudications and *in no way implies that parties have a right to seek interlocutory review on that same ground.* *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-00-11, 51 NRC 297, 299 (2000) (first emphasis in original; second emphasis added).

Indeed, if the Commission permitted such requests, there would be no limit to the arguments parties could present via interlocutory appeal — a result fundamentally at odds with the Commission's expressed intent to limit such appeals.

MEMORANDUM AND ORDER

Before us today is Entergy Nuclear Operations, Inc.'s (Entergy) petition for interlocutory review¹ of the Atomic Safety and Licensing Board's December 18, 2008 Memorandum and Order² denying reconsideration of its July 31, 2008 decision³ to admit for litigation Consolidated Contention Riverkeeper EC-3/Clearwater EC-1 ("Consolidated Contention"). In that contention, two intervenors (Riverkeeper, Inc. and Hudson River Sloop Clearwater, Inc.) assert that Entergy's license renewal application⁴ fails to assess adequately the significance of new information concerning the potential environmental impacts of radionuclide leaks from the spent fuel pools at the Indian Point facility.⁵ Riverkeeper, Inc. filed an Answer opposing Entergy's petition,⁶ and the NRC Staff filed an Answer supporting the petition.⁷ Entergy subsequently filed a Reply to Riverkeeper's Answer.⁸ We deny the petition.

I. BACKGROUND

Entergy claims that its Petition for Interlocutory Review satisfies both of the two independent interlocutory review standards set forth in 10 C.F.R. § 2.341(f)(2)(i) and (ii) because the litigation of the Consolidated Contention will both (i) cause Entergy immediate and serious irreparable harm, and (ii) affect the basic structure of this proceeding in a pervasive and unusual manner.

¹Entergy's Petition for Interlocutory Review of Atomic Safety and Licensing Board Decision Admitting Consolidated Riverkeeper EC-3/Clearwater EC-1 (Jan. 7, 2009) (Petition for Interlocutory Review).

²Memorandum and Order (Authorizing Interested Governmental Entities to Participate in This Proceeding) (Dec. 18, 2008) (unpublished) (December 18th Decision).

³LBP-08-13, 68 NRC 43 (2008).

⁴On April 23, 2007, Entergy filed an application to renew the operating licenses for Indian Point Units 2 and 3 for an additional 20-year period.

⁵The Consolidated Contention is a combination of Riverkeeper, Inc.'s Contention EC-3 and Hudson River Sloop Clearwater, Inc.'s Contention EC-1. *See* LBP-08-13, 68 NRC at 190-91, 194, 220 (2008); December 18th Decision at 12-16.

⁶Riverkeeper, Inc.'s Answer in Opposition to Entergy's Petition for Interlocutory Review of the Atomic Safety and Licensing Board Decision Admitting Consolidated Contention Riverkeeper EC-3/Clearwater EC-1 (Jan. 20, 2009).

⁷NRC Staff's Answer in Support of Entergy's Petition for Interlocutory Review of Atomic Safety and Licensing Board's Decision Admitting Consolidated Contention Riverkeeper EC-3/Clearwater EC-1 (Jan. 21, 2009) (Staff Answer).

⁸Entergy's Reply to Riverkeeper's Answer Opposing Interlocutory Appeal of Licensing Board Admission of Consolidated Contention (Jan. 26, 2009).

Regarding the first criterion, Entergy asserts that the contention will be expensive and time-consuming to litigate and will consequently delay the resolution of the proceeding. According to Entergy, if the Board's admissibility ruling stands, then Entergy would be required to research and identify thousands of documents relevant to the Consolidated Contention (at least three times as many documents as must be disclosed for any other contention),⁹ and if the Board grants a still pending motion to apply Subpart G procedures, then Entergy could also be subject to depositions, interrogatories, and other discovery obligations.¹⁰ Regarding the second criterion, Entergy contends that the Board's imposition of "duplicative or unnecessary litigation steps" fundamentally affects the proceeding's basic structure.¹¹

In the alternative, Entergy requests that, if its petition for interlocutory review is denied, we nonetheless exercise our discretion to review the admission of the Consolidated Contention as an exercise of our inherent supervisory authority over adjudications.¹²

II. DISCUSSION

The Commission may, in its discretion, grant interlocutory review at the request of a party. Pursuant to 10 C.F.R. § 2.341(f)(2), the petition for interlocutory review will be granted only if the party demonstrates that the issue for which the party seeks interlocutory review:

- (i) Threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the presiding officer's final decision; or
- (ii) Affects the basic structure of the proceeding in a pervasive or unusual manner.¹³

⁹ Petition for Interlocutory Review at 2, 14 & n.58.

¹⁰ *Id.* at 2, 13-14. In a separate decision, the Board deferred ruling upon a motion by three intervenors to apply the procedural rules found in 10 C.F.R. Part 2, Subpart G. Memorandum and Order (Addressing Requests that the Proceeding Be Conducted Pursuant to Subpart G) (Dec. 18, 2008) (unpublished). The Board directed the parties to begin mandatory discovery as outlined in 10 C.F.R. § 2.336. However, pending our ruling today, the Licensing Board granted the parties an extension of time to certify completion of initial and supplemental mandatory disclosures on the Consolidated Contention. Order (Granting Consent Motion Regarding Mandatory Disclosures) (Jan. 30, 2009) (unpublished).

¹¹ Petition for Interlocutory Review at 13.

¹² *Id.* at 2, 14-16.

¹³ Outside the context of petitions for interlocutory review, the Commission may also take interlocutory review of questions or rulings that a licensing board either refers or certifies to the Commission under 10 C.F.R. §§ 2.319(l) or 2.323(f), respectively. *See* 10 C.F.R. § 2.341(f)(1). There has been no referral or certification here.

As we have repeatedly indicated, we grant such petitions only under “extraordinary circumstances.”¹⁴

A. Petition for Interlocutory Review

Entergy seeks to distinguish two different lines of Commission precedent that cut against its petition for interlocutory review. First, our decisions have held repeatedly that increased litigation delay and expense do not justify interlocutory review of an admissibility decision.¹⁵ Second, absent highly unusual circumstances, we consistently have declined to conduct interlocutory review of contention admissibility decisions.¹⁶ In support of its view that interlocutory review nonetheless is appropriate here, Entergy points to two examples where the Commission or the now defunct Atomic Safety and Licensing Appeal Board indicated it might, under appropriate circumstances, still conduct an interlocutory review despite these two lines of precedent.¹⁷ Neither example pertains here.

1. “Immediate and Serious Irreparable Impact”

In support of its argument that admission of the Consolidated Contention would cause “immediate and serious irreparable harm,” Entergy relies on a 1973 Appeal Board decision (*Zion*) for the proposition that interlocutory review of a Licensing Board decision may be warranted where that decision threatens to impose “truly

¹⁴*AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 119 & n.44 (2006); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-1, 53 NRC 1, 5 (2001); *Safety Light Corp.* (Bloomsburg Site Decontamination), CLI-92-9, 35 NRC 156, 158 (1992).

¹⁵*Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-04-31, 60 NRC 461, 466 (2004), quoting *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-675, 15 NRC 1105, 1114 (1982). See also *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-11, 40 NRC 55, 61 (1994):

It is well established in Commission jurisprudence that the mere commitment of resources to a hearing that may later prove to have been unnecessary does not constitute sufficient grounds for an interlocutory review of a Licensing Board order. . . . Nor may a party obtain interlocutory review merely by asserting potential delay and increased expense attributable to an allegedly erroneous ruling by the Licensing Board.

¹⁶See, e.g., *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-21, 62 NRC 538, 539 (2005) (“[R]outine ruling[s] on contention admissibility’ are usually not occasions to exercise our authority to step into ongoing Licensing Board proceedings and undertake interlocutory review” (quoting *Clinton*, CLI-04-31, 60 NRC at 466)); *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-94-2, 39 NRC 91, 93-94 (1994) (“The mere expansion of issues rarely, if ever, has been found to affect the basic structure of a proceeding in a pervasive or unusual manner so as to warrant interlocutory review”).

¹⁷Petition for Interlocutory Review at 4-6.

exceptional delay or expense.”¹⁸ There, the Appeal Board dismissed a licensing board referral of an order quashing a subpoena. The Appeal Board concluded that the referral had failed to satisfy the standards applicable to such referrals — including whether prompt appellate review “is necessary to prevent detriment to the public interest or unusual delay or expense.”¹⁹ The phrase that Entergy stresses — “truly exceptional delay or expense” — nowhere appeared in our procedural rules at that time (nor does it appear in today’s regulations). In our view, the Appeal Board simply was paraphrasing the applicable regulatory standard for referrals (“unusual delay or expense”). The decision contains no indication that the Appeal Board was attempting to supplant the interlocutory review standard.

Our boards have mentioned the phrase “truly exceptional delay or expense” in only four other published NRC adjudicatory decisions during the 36 years after *Zion* first used it.²⁰ None of these four decisions suggested that even “truly exceptional” expenses would meet the “irreparable impact” standard governing Entergy’s petition for interlocutory review. Indeed, in each, the Licensing or Appeal Board followed the example of *Zion*, and *rejected* the argument that the particular delay or expense at issue was “truly exceptional.” This uniform refusal to grant interlocutory review, even where a litigant claims “truly exceptional delay or expense,” is consistent with the overwhelming weight of authority supporting the proposition that “[t]he added delay and expense occasioned by

¹⁸ *Id.* at 5, quoting *Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-116, 6 AEC 258, 259 (1973).

¹⁹ *Zion*, ALAB-116, 6 AEC at 258, quoting 10 C.F.R. § 2.730(f) (1973) (rescinded). When we abolished the Appeal Board in 1991 and established a new appellate structure for reviewing presiding officers’ decisions, we “codified in 10 C.F.R. § 2.786(g) the existing standard governing interlocutory review pursuant to 10 C.F.R. §§ 2.718(i) and 2.730(f).” *Safety Light*, CLI-92-9, 35 NRC at 158. In 2004, the Commission again revised its rules of practice, retaining this provision in the context of referrals and certifications to the Commission. 10 C.F.R. § 2.323(f)(1) (2008) (providing that the presiding officer may refer a ruling to the Commission if, in the presiding officer’s judgment, “prompt decision is necessary to prevent detriment to the public interest *or unusual delay or expense*,” or if the ruling involves a novel issue that “merits Commission review at the earliest opportunity”). This standard does not apply, however, to litigants’ petitions for interlocutory review. Those are governed by section 2.341(f)(2). We consider *Zion* here in the context of Entergy’s assertion of “immediate and serious irreparable impact” pursuant to 10 C.F.R. § 2.341(f)(2)(i). Petition for Interlocutory Review at 13.

²⁰ *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-805, 21 NRC 596, 600 & n.16 (1985) (intervenor’s inability to pay a \$15,000 witness fee); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-768, 19 NRC 988, 992 & n.14 (1984); *Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-185, 7 AEC 240, 241 n.3 (1974); *Allied-General Nuclear Services* (Barnwell Nuclear Fuel Plant), LBP-74-41, 7 AEC 1015, 1020 & n.11 (1974).

the admission of [a] contention — even if erroneous — . . . does not alone . . . warrant interlocutory review.’’²¹

Three years ago, we rejected a motion for stay that was, in substance, quite similar to Entergy’s petition. The NRC Staff “expresse[d] concern that the Board’s legal interpretation of the term [‘circulated drafts’] will drastically expand the number of documents all parties must place on the [High-Level Waste Licensing Support Network], including the NRC Staff.’’²² Based on that concern, the Staff claimed irreparable harm because, without a stay of the Board’s order, the Staff said it would “‘have to review its files to consider whether documents meet the PAPO Board’s test for ‘circulated drafts.’’’²³ We denied the Staff’s motion and reiterated our longstanding view that “‘litigation expense, even substantial and unrecoverable cost, does not constitute irreparable injury.’’’²⁴

Indeed, we have found *no instance* in this agency’s jurisprudence where either we or our boards have ruled that expenses of any kind constituted “‘irreparable injury.’’ This issue arises most frequently in situations where, as here, a movant for a stay or interlocutory review claims “‘irreparable injury’’ based on excessive or unnecessary litigation expenses. We have uniformly rejected such arguments.²⁵

Even were we inclined to depart from our longstanding policy, we do not find that Entergy has shown “‘unusual delay or expense’’ sufficient to demonstrate

²¹ *Clinton*, CLI-04-31, 60 NRC at 466, quoting *Perry*, ALAB-675, 15 NRC at 1114.

²² *U.S. Department of Energy* (High-Level Waste Repository), CLI-05-27, 62 NRC 715, 718 (2005).

²³ *Id.*

²⁴ *Id.* See also *Kerr-McGee Chemical Corp.* (West Chicago Rare Earths Facility), LBP-85-3, 21 NRC 244, 257 (1985). In *Kerr-McGee*, the licensing board rejected a motion for referral to the Appeal Board, in which the Staff had argued that the unrecoverable expense it would incur in supplementing the record (as required by the Board) would constitute “‘immediate and irreparable harm.’’ The supplementation at issue involved preparation of either a supplemental or a revised environmental impact statement and also a Staff position paper approving or disapproving *Kerr-McGee’s* regulatory proposal. *Id.* at 254-55.

²⁵ In addition to the cases already cited, see *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-11, 55 NRC 260, 263 (2002) (stay); *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-9, 40 NRC 1, 6 (1994) (stay); *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-84-17, 20 NRC 801, 804 (1984) (stay); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-737, 18 NRC 168, 176 (1983) (interlocutory review); *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-706, 16 NRC 1754, 1758 n.7 (1982) (interlocutory review); *Pennsylvania Power & Light Co.* (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-641, 13 NRC 550, 552-53 (1981) (interlocutory review); *Allied-General Nuclear Services* (Barnwell Nuclear Fuel Plant Separations Facility), ALAB-296, 2 NRC 671, 684 (1975) (stay); *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-15, 56 NRC 42, 49 (2002) (stay); *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-87-29, 26 NRC 302, 312 (1987) (interlocutory review). See generally *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-395, 5 NRC 772, 779 (1977) (stay; Appeal Board referred generally to irreparable financial injury despite movant’s failure to plead it).

irreparable injury. In our view, Entergy has not provided the requisite factual support for its claim that it would be irreparably impacted by a “truly exceptional delay or expense.”²⁶ Nor, as we observed above, do we see anything unusual in a litigant being required to “research, identify and disclose . . . thousands of documents” relevant to a contention,²⁷ or in Entergy and its employees potentially being required to undergo depositions, answer interrogatories, and incur other discovery obligations.²⁸ Indeed, the potential for litigation expense and delay to which Entergy refers is just the kind of burden that licensees and applicants voluntarily assume when filing applications with the Commission.²⁹ And to the extent Entergy may be subject to unreasonable or burdensome discovery requests in the future, it is free to seek relief from the Board, which has ample authority to “prevent or modify unreasonable discovery demands.”³⁰

2. Effect on the “Basic Structure of the Proceeding”

Entergy next asserts that one of our decisions in *Private Fuel Storage* authorizes interlocutory review of a Licensing Board decision “mandating duplicative or unnecessary litigating steps”³¹ and thereby “fundamentally alter[ing] the nature of the proceeding.”³²

The circumstances underlying that decision differ starkly from those here. In *Private Fuel Storage*, we addressed a situation in which the appointment of a second licensing board would have delayed the rulings on the admissibility of

²⁶ A party seeking to demonstrate irreparable injury must provide factual substantiation for that claim. See, e.g., *International Uranium (USA) Corp. (White Mesa Uranium Mill)*, CLI-02-10, 55 NRC 251, 259 (2002); *Sequoyah Fuels*, CLI-94-9, 40 NRC at 7.

²⁷ Petition for Interlocutory Review at 14. Nor do we discern any particular significance in Entergy’s assertion that the number of those documents is at least three times the number that must be disclosed regarding any other contention. *Id.* at 2, 14 & n.58.

²⁸ *Id.* at 2, 13-14. The Board’s decision regarding the use of Subpart G procedures has not been appealed, and we take no position on the ruling here.

²⁹ See *Pa’ina Hawaii, LLC*, CLI-06-18, 64 NRC 1, 5 (2006) (“extra expense[. . .] work [and . . .] procedural delays . . . are normal accoutrements of any hearing process involving NEPA [and I]license applicants at the NRC assume the risk of imposition of these additional burdens” (footnotes and internal quotation marks omitted)); *Connecticut Yankee Atomic Power Co. (Haddam Neck Plant)*, CLI-01-25, 54 NRC 368, 374 (2001) (“We have . . . rejected the argument that a mere increase in the burden of litigation constitutes ‘serious and irreparable’ harm”); *Consolidated Edison Co. of New York (Indian Point, Units 1 and 2)*, CLI-01-8, 53 NRC 225, 229 (2001) (“litigation inevitably results in the parties’ loss of both time and money”).

³⁰ *Sequoyah Fuels*, CLI-94-9, 40 NRC at 7.

³¹ Petition for Interlocutory Review at 4-5, 13, quoting *Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation)*, CLI-98-7, 47 NRC 307, 310 (1998).

³² *Id.* at 4.

the nine contentions assigned to the new board.³³ We ruled that delay would ensue because the new board would initially be unfamiliar with the adjudicatory record regarding those contentions and would also be unable to combine any of its nine contentions with any of the remaining eighty contentions that the first licensing board had already addressed.³⁴ Moreover, the appointment of a second board in *Private Fuel Storage* would have required that the new board and all litigants prepare for and participate in a second prehearing conference³⁵ — a truly duplicative litigation step not present here. We are instead faced merely with litigation efforts that *Entergy* considers unnecessary because they relate to a contention *Entergy* believes was improperly admitted. This does not “affect the basic structure of this proceeding” at all — much less in “a pervasive and unusual manner.”³⁶

Indeed, were we to permit litigants to successfully invoke interlocutory review based merely on an assertion that the licensing board erred in admitting (or excluding) a contention, we would be opening the floodgates to a potential deluge of interlocutory appeals from any number of participants who lose admissibility rulings.³⁷ This would eviscerate our longstanding policy disfavoring interlocutory appeals.³⁸

³³The contentions in question had been considered, but not ruled upon, by the original board. *Private Fuel Storage*, CLI-98-7, 47 NRC at 311-12.

³⁴*Id.*

³⁵*Id.* at 312.

³⁶10 C.F.R. § 2.341(f)(2)(ii).

³⁷*Rancho Seco*, CLI-94-2, 39 NRC at 93-94. We do not refer here to situations in which a board denies a petition to intervene in its entirety or grants a petition to intervene that, according to an opposing litigant, should have been denied in its entirety. In those limited situations, the losing litigant has a right to Commission review under 10 C.F.R. § 2.311(b) or (c).

³⁸*See, e.g., Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station)*, CLI-07-2, 65 NRC 10, 12 (2007) (“the Commission generally disfavor[s] interlocutory, piecemeal appeals” (footnote and internal quotation marks omitted)); *Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station)*, CLI-07-1, 65 NRC 1, 3 (2007) (“Our rules set a high bar for interlocutory review petitions”); *Oyster Creek*, CLI-06-24, 64 NRC at 119 (referring to “the Commission’s longstanding general policy disfavor[ing] interlocutory review”).

This rationale is equally dispositive of the Staff’s argument that “[t]he Board’s decision to admit the Consolidated Contention adversely affects this . . . proceeding in a pervasive and unusual manner, in that it would allow a party to attack the Commission’s regulations adopting the GEIS [Generic Environmental Impact Statement for License Renewal Applications] [and] 10 C.F.R. § 51.53(e)(3)(i).” Staff Answer at 5-6. *See also id.* at 11. Even assuming that the Board’s ruling is legal error (a matter on which we express no opinion), that fact would still be insufficient to justify interlocutory review. As we held in *Private Fuel Storage*, “[t]he possibility that an interlocutory ruling may be wrong does not in itself justify interlocutory review.” *Private Fuel Storage*, CLI-01-1, 53 NRC at 5, citing *Sequoyah Fuels*, CLI-94-11, 40 NRC at 61. We further indicated in the same *Private Fuel Storage*

(Continued)

B. Request That the Commission Take Review *Sua Sponte*

Entergy requests that, even if we deny its petition, we nonetheless exercise our inherent supervisory authority over this proceeding to conduct interlocutory review. In essence, this constitutes a request that we consider the admissibility issue *sua sponte* (that is, on our own motion). As we explained in *Shearon Harris*, this kind of request is improper:

[T]he Commission itself may exercise its discretion to review a licensing board's interlocutory order if the *Commission* wants to address a novel or important issue However, the Commission's decision to do so in any particular proceeding stems from its inherent supervisory authority over adjudications and *in no way implies that parties have a right to seek interlocutory review on that same ground*.³⁹

Indeed, if we permitted such requests, there would be no limit to the arguments parties could present via interlocutory appeal — a result fundamentally at odds with the Commission's expressed intent to limit such appeals. And in any event, we conclude here that the Board's routine ruling on contention admissibility provides no occasion for us to invoke our inherent supervisory authority.⁴⁰

III. CONCLUSION

For the reasons set forth above, Entergy's petition for interlocutory review is *denied*.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 5th day of March 2009.

decision that “[i]ncorrect interlocutory rulings may be reviewed, if necessary, on appeals from partial initial decisions or other final appealable orders.” *Private Fuel Storage*, CLI-01-1, 53 NRC at 5, citing *Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation)*, CLI-00-2, 51 NRC 77, 80 (2000).

³⁹ *Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant)*, CLI-00-11, 51 NRC 297, 299 (2000) (first emphasis in original; second emphasis added).

⁴⁰ *Clinton*, CLI-04-31, 60 NRC at 466 (internal quotation marks omitted).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

**G. Paul Bollwerk, III, Chairman
Nicholas G. Trikouros
Dr. James F. Jackson**

In the Matter of

**Docket Nos. 52-025-COL
52-026-COL
(ASLBP No. 09-873-01-COL-BD01)**

**SOUTHERN NUCLEAR OPERATING
COMPANY
(Vogtle Electric Generating Plant,
Units 3 and 4)**

March 5, 2009

In this 10 C.F.R. Part 52 proceeding regarding the application of Southern Nuclear Operating Company (SNC) for a combined license (COL) to construct and operate two new nuclear reactors at its existing Vogtle Electric Generating Plant (VEGP) site, ruling on a petition filed jointly by five public interest organizations seeking to intervene to contest the SNC COL application, the Licensing Board concludes that, having established the requisite standing and proffered one admissible contention, the Joint Petitioners are admitted as parties to the proceeding.

RULES OF PRACTICE: STANDING TO INTERVENE

In determining whether an individual or organization should be granted party status in a proceeding based on standing “as of right,” the agency has applied contemporaneous judicial standing concepts that require a participant to establish (1) it has suffered or will suffer a distinct and palpable injury that constitutes

injury-in-fact within the zones of interests arguably protected by the governing statutes (e.g., the AEA, the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321, *et seq.*); (2) the injury is fairly traceable to the challenged action; and (3) the injury is likely to be redressed by a favorable decision. *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996).

**RULES OF PRACTICE: STANDING TO INTERVENE
(PRESUMPTION BASED ON GEOGRAPHIC PROXIMITY)**

In cases involving the possible construction or operation of a nuclear power reactor, proximity to the proposed facility has been considered sufficient to establish the requisite standing elements. *See Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989).

**RULES OF PRACTICE: STANDING TO INTERVENE
(REPRESENTATIONAL)**

When an entity seeks to intervene on behalf of its members, that entity must show it has an individual member who can fulfill all the necessary standing elements and who has authorized the organization to represent his or her interests. *See Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000).

**RULES OF PRACTICE: STANDING TO INTERVENE
(CONSTRUCTION OF PETITION)**

In assessing a petition to determine whether these elements are met, which a licensing board must do even though there are no objections to a petitioner's standing, the Commission has indicated that we are to "construe the petition in favor of the petitioner." *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995).

RULES OF PRACTICE: CONTENTIONS (SPECIFICITY AND BASIS; SUPPORTING INFORMATION OR EXPERT OPINION; CHALLENGE TO LICENSE APPLICATION; SCOPE OF THE PROCEEDING; MATERIALITY)

Section 2.309(f) of the Commission's rules of practice specifies the requirements that must be met if a contention is to be deemed admissible. Specifically, a contention must provide (1) a specific statement of the legal or factual issue sought

to be raised; (2) a brief explanation of the basis of the contention; (3) a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at hearing; and (4) sufficient information demonstrating that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief. *See* 10 C.F.R. § 2.309(f)(1)(i), (ii), (v), and (vi). In addition, the petitioner must demonstrate that the issue raised in the contention is both "within the scope of the proceeding" and "material to the findings the NRC must make to support the action that is involved in the proceeding." *Id.* § 2.309(f)(1)(iii)-(iv). Failure to comply with any of these requirements is grounds for dismissing a contention. *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999); *see also Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991).

RULES OF PRACTICE: CONTENTIONS (CHALLENGE OF COMMISSION RULE; CHALLENGE OF STATUTORY REQUIREMENT; CHALLENGE OF BASIC STRUCTURE OF AGENCY REGULATORY POLICY; CHALLENGE BASED ON REGULATORY POLICY VIEWS)

An adjudication is not the proper forum for challenging applicable statutory requirements or the basic structure of the agency's regulatory process. *See Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20, *aff'd in part on other grounds*, CLI-74-32, 8 AEC 217 (1974). Similarly, a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible. *See* 10 C.F.R. § 2.335; *Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974). This includes contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking. *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 159 (2001); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-93-1, 37 NRC 5, 29-30 (1993); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1656 (1982); *see also Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 251 (1996); *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-91-19, 33 NRC 397, 410, *aff'd in part and rev'd in part on other grounds*, CLI-91-12, 34 NRC 149 (1991). By

the same token, a contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue. *See Peach Bottom*, ALAB-216, 8 AEC at 20-21 & n.33.

RULES OF PRACTICE: CONTENTIONS (SCOPE OF PROCEEDING)

All proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to the Licensing Board. *See* 10 C.F.R. § 2.309(f)(1)(iii); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985). As a consequence, any contention that falls outside the specified scope of the proceeding must be rejected. *See Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289 n.6 (1979).

RULES OF PRACTICE: CONTENTIONS (SUPPORTING INFORMATION OR EXPERT OPINION)

It is the petitioner's obligation to present factual information and/or expert opinion necessary to support its contention. *See* 10 C.F.R. § 2.309(f)(1)(v); *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). While a Board may appropriately view a petitioner's supporting information in a light favorable to the petitioner, failure to provide such information regarding a proffered contention requires that the contention be rejected. *See Palo Verde*, CLI-91-12, 34 NRC at 155. In this connection, neither mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention. *See Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003). If a petitioner neglects to provide the requisite support for its contentions, it is not within the Board's power to make assumptions of fact that favor the petitioner, nor may the Board supply information that is lacking. *See Palo Verde*, CLI-91-12, 34 NRC at 155; *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 422 (2001); *Georgia Tech Research Reactor*, LBP-95-6, 41 NRC at 305.

RULES OF PRACTICE: CONTENTIONS (SUPPORTING INFORMATION OR EXPERT OPINION)

Simply attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention. *See Fansteel*, CLI-03-13, 58 NRC at 204-05. Along these lines, any supporting material provided by a petitioner, including those portions of the material that are not relied upon, is subject to Board scrutiny. *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1996), *rev'd in part on other grounds*, CLI-96-7, 43 NRC 235 (1996). Thus, the material provided in support of a contention will be carefully examined by the Board to confirm that on its face it does supply adequate support for the contention. *See Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 48 (1989), *vacated in part on other grounds and remanded*, CLI-90-4, 31 NRC 333 (1990).

RULES OF PRACTICE: CONTENTIONS (MATERIALITY)

To be admissible, the regulations require that all contentions assert an issue of law or fact that is material to the outcome of a licensing proceeding, meaning that the subject matter of the contention must impact the grant or denial of a pending license application. *See* 10 C.F.R. § 2.309(f)(1)(iv). This requirement of materiality often dictates that any contention alleging deficiencies or errors in an application also indicate some significant link between the claimed deficiency and either the health and safety of the public or the environment. *See Yankee Nuclear*, LBP-96-2, 43 NRC at 75-76; *see also Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 439-41 (2002), *petition for review denied*, CLI-03-12, 58 NRC 185, 191 (2003).

RULES OF PRACTICE: CONTENTIONS (CHALLENGE TO LICENSE APPLICATION)

All properly formulated contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application (including the Safety Analysis Report and the Environmental Report) so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact. *See* 10 C.F.R. § 2.309(f)(1)(vi). Any contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue can be dismissed. *See Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined*, CLI-94-2, 39 NRC 91 (1994); *Texas Utilities*

Electric Co. (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992).

RULES OF PRACTICE: CONTENTIONS (CHALLENGE OF COMMISSION RULE; ACCEPTANCE WHERE SUBJECT TO PENDING RULEMAKING)

The current situation in which a Part 52 COLA referencing a certified standard design (CSD) that, while previously approved, faces potential modification in the form of pending design certification document (DCD) revisions that both have and have not been incorporated into the COLA is no doubt one the Commission hoped reactor designers and COL applicants would avoid so as to maximize the longstanding “reliability” and “finality” hallmarks of the Part 52 CSD, early site permit (ESP), and COL processes. At the same time, this is a happenstance the Commission has recognized may occur, and could result in a properly framed contention being admitted and held in abeyance pending resolution of the design certification rulemaking (DCR). *See Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1, 3-4 & nn.5, 8 (2008); *see also Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-09-4, 69 NRC 80, 84-85 (2009).

COMBINED LICENSE: CRITERIA FOR ISSUANCE

Absent a future exemption request, an applicant cannot obtain a COL for its proposed facility until the DCR process for a COLA-referenced revision to the COLA-referenced DCD is completed by incorporating the revision into the CSD.

RULES OF PRACTICE: CONTENTIONS (CHALLENGE OF COMMISSION RULE; CHALLENGE OF BASIC STRUCTURE OF AGENCY REGULATORY POLICY)

A concern about the travails of the post-initial intervention contention admission process does not provide the basis for an open-ended, placeholder contention. Rather than asserting, based on documentary material or expert analysis, that some particular facet of a proposed DCD change has a safety impact relative to some specific aspect of either the existing CSD or the proposed unit, the focus of a submitted contention was a generalized concern that because the design issues reflected in the proposed DCD revision will remain unresolved pending the completion of the DCR to incorporate the change, the COLA is somehow fatally incomplete. But given that a pending DCD revision clearly can be referenced in a COLA, *see* 10 C.F.R. § 52.55(c), the failure to frame a specific, sufficiently

supported, material issue regarding a safety concern arising from the interaction of the proposed DCD amendment with the existing CSD and/or a facility-specific provision of the COLA leaves the contention as no more than an inadmissible challenge to the Part 52 regulatory framework.

RULES OF PRACTICE: CONTENTIONS (SUPPORTING INFORMATION OR EXPERT OPINION)

If a contention is a contention of omission, a petitioner need only “ ‘identify[] the regulatively required missing information’ ” and provide enough facts to show that the application is incomplete. *Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 317 (2008) (quoting *Pa’ina Hawaii, LLC*, LBP-06-12, 63 NRC 403, 414 (2006)).

REGULATIONS: INTERPRETATION (10 C.F.R. § 52.79(a))

RULES OF PRACTICE: CONTENTIONS (MATERIALITY)

While section 52.79(a)(3) does not explicitly speak to long-term storage of low-level radioactive waste (LLRW) or any specific amount of waste storage, if offsite disposal for LLRW remains unavailable, it is not apparent how a COL applicant could address compliance with 10 C.F.R. Part 20 limits in accordance with section 52.79(a)(3) without addressing what it intends to do with the LLRW (which certainly qualifies as radioactive material) expected to be produced in the operation of a proposed reactor unit. Thus, because an applicant’s compliance with 10 C.F.R. § 52.79 is a material part of what the agency must assess in a COL proceeding, the question of how the applicant intends to handle LLRW in the absence of an offsite disposal facility is material to the findings the agency must make.

MEMORANDUM AND ORDER
(Ruling on Standing and Contention Admissibility)

On March 31, 2008, Southern Nuclear Operating Company (SNC) applied to the Nuclear Regulatory Commission (NRC) for a combined license (COL) under 10 C.F.R. Part 52 to construct and operate two new units employing Westinghouse Electric Corporation (WEC) AP1000 advanced passive pressurized water reactors at the Vogtle Electric Generating Plant (VEGP) site near Waynesboro, Georgia. On November 17, 2008, five organizations — the Center for a Sustainable Coast, Savannah Riverkeeper, the Southern Alliance for Clean Energy, the Atlanta

Women’s Action for New Directions, and the Blue Ridge Environmental Defense League (hereinafter referred to collectively as Joint Petitioners) — jointly filed a hearing petition seeking to intervene and challenge the SNC COL application (COLA). Both Applicant SNC and the NRC Staff oppose the petition as failing to provide any admissible contentions.

For the reasons set forth below, we find that each of the petitioning organizations has established the requisite standing to intervene in this proceeding and that they have submitted one admissible contention, SAFETY-1, which questions the completeness of the SNC COLA’s consideration of low-level radioactive waste (LLRW) storage and is set forth in an appendix to this decision. Accordingly, we admit each of the Joint Petitioners as a party to this proceeding. Additionally, we outline certain procedural and administrative rulings regarding the litigation of the admitted contention, as well as refer to the Commission our ruling finding inadmissible contentions MISC-1 and MISC-2, which concern the purported lack of completeness of the SNC COLA because of the pendency of two revisions to the WEC AP1000 certified standard design (CSD).

I. BACKGROUND

A. 10 C.F.R. Part 52 Licensing Process and the SNC COLA

The 10 C.F.R. Part 50 licensing process, which was employed for the 104 commercial nuclear power plants currently operating in the United States, requires that an applicant first obtain a construction permit for the facility, followed by an operating license. Both licenses are issued separately and, under section 189a of the Atomic Energy Act (AEA) of 1954, as amended, 42 U.S.C. § 189a, hearing rights accrue separately as to each requested permission. Under the 10 C.F.R. Part 52 licensing process initially adopted in 1989, an entity may apply for a single COL that authorizes both new reactor construction and operation. Specifically, Subpart C of Part 52 establishes procedures for the issuance of a combined construction permit and conditional operating license for a nuclear power plant and the conduct of the hearing that is afforded in connection with a COLA. As was noted in the statement of considerations supporting the Part 52 rulemaking proposal, a COL is “essentially a construction permit which also requires consideration and resolution of many of the issues currently considered at the operating license stage.” *See* Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors, 53 Fed. Reg. 32,060, 32,062 (Aug. 23, 1988). The general requirements for the contents of a COL application are set forth in 10 C.F.R. §§ 52.79-.80.

Additionally, under Subpart C of Part 52, a COL applicant can reference a CSD for the reactor facility it proposes to construct and operate. *See* 10 C.F.R. § 52.73(a). Because a CSD is the product of an agency rulemaking process

conducted pursuant to Subpart B of Part 52 in which a reactor design is reviewed and approved for future use, if a CSD is referenced in a COLA, in the context of an adjudicatory challenge to the COLA, and absent a petition under 10 C.F.R. § 2.335 seeking a waiver, the Commission will treat the CSD as resolving all matters that could have been raised in the design certification rulemaking. *See id.* § 52.83(a).

Under 10 C.F.R. Part 52, Subpart A, an applicant interested in constructing and operating a new nuclear power plant also can apply for an early site permit (ESP). An ESP allows an applicant to resolve key site-related environmental, safety, and emergency planning issues before choosing the particular facility design for, or deciding to build such a facility on, a designated site, essentially allowing the applicant to “bank” a possible site for the future construction of a specified number of new nuclear facilities. *See id.* § 52.39(a). SNC has, in fact, filed such an ESP application proposing the construction of two new units, Vogtle Units 3 and 4, at the existing VEGP site where two SNC-owned power reactors have been operating since 1987. *See Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-07-3, 65 NRC 237, 247 (2007). The SNC ESP application is currently under review by the NRC Staff and is the subject of an adjudicatory hearing before another licensing board.

On March 31, 2008, SNC applied under 10 C.F.R. Part 52, Subpart C, for a COL for Vogtle Units 3 and 4, to be constructed utilizing the AP1000 CSD revision 15, which has been duly certified.¹ *See* 10 C.F.R. Part 52, App. D.

B. Joint Petitioners Hearing Request/Licensing Board Establishment and Initial Procedures

In response to a September 16, 2008 notice of hearing and opportunity to petition for leave to intervene regarding the Vogtle COL application, 73 Fed. Reg. 53,446 (Sept. 16, 2008), on November 17, 2008, Joint Petitioners filed a timely request for hearing and petition to intervene in which they sought to establish their standing and the admissibility of three proposed contentions. *See* Petition for Intervention (Nov. 17, 2008) [hereinafter Intervention Petition]. Thereafter, on December 2, 2008, this Atomic Safety and Licensing Board was established to adjudicate this contested portion of the Vogtle COL proceeding. *See* [SNC]; Establishment of Atomic Safety and Licensing Board, 73 Fed. Reg. 74,532 (Dec. 8, 2008). In an initial prehearing order issued the same day, in addition to establishing certain procedural measures, the Board requested that Joint Petitioners consider whether each of their contentions could be designated under

¹ An electronic copy of the SNC COLA for Vogtle Units 3 and 4 can be found on the NRC website at <http://www.nrc.gov/reactors/new-reactors/col/vogtle.html> (last visited Mar. 4, 2009).

one of nine different subject matter categories associated with the provisions of the SNC COLA, including Final Safety Analysis Report (SAFETY) and Miscellaneous (MISC). The order also established that unless Joint Petitioners advised the Board of any objections by December 5, 2008, Joint Petitioners three contentions, originally designated as Technical Contention 1, Technical Contention 2, and Safety Contention 1, would be relabeled as MISC-1, MISC-2, and SAFETY-1, respectively. *See* Licensing Board Memorandum and Order (Initial Prehearing Order) (Dec. 2, 2008) at 2-3 (unpublished) [hereinafter Initial Prehearing Order]. Joint Petitioners subsequently made no objection to these labels.

On December 12, 2008, SNC and the Staff filed responses to Joint Petitioners hearing request in which they did not contest the standing of the five organizations seeking to intervene in this proceeding, but indicated they opposed the admission of any of Joint Petitioners proffered contentions. *See* [SNC]'s Answer Opposing Petition to Intervene (Dec. 12, 2008) at 3 [hereinafter SNC Answer]; NRC Staff Answer to "Petition for Intervention" (Dec. 12, 2008) at 1 [hereinafter Staff Answer]. After requesting and being granted an extension of time to submit their response to the SNC and Staff answers, *see* Petitioners' Motion for Extension of Time to Reply to Responses to Contentions (Dec. 16, 2008); Licensing Board Order (Granting Motion for Extension of Time to File Reply) (Dec. 18, 2008) (unpublished), on December 23, 2008, Joint Petitioners filed a reply to those answers. *See* Petitioners' Reply to SNC Answer Opposing Petition to Intervene and NRC Staff Answer to Petition for Intervention (Dec. 23, 2008) [hereinafter Joint Petitioners Reply].

Thereafter, in line with several orders establishing the time, place, and procedures for an initial prehearing conference,² on January 28, 2009, the Board heard arguments regarding the admissibility of Joint Petitioners three contentions, *see* Tr. at 1-113. SNC and the Staff participating from the Licensing Board Panel's Rockville, Maryland hearing room, while Joint Petitioners took part via videoconference from a public conference room in the agency's Region II offices in Atlanta, Georgia.

Subsequent to the January 2009 oral argument, the Commission issued rulings in the *Bellefonte* and *Fermi* COL proceedings, *see Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68 (2009); *Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-09-4, 69 NRC 80 (2009), and the Licensing Board in the *Summer* COL proceeding issued a decision, *see South Carolina Electric & Gas Co.* (Virgil C. Summer Nuclear

² *See* Licensing Board Memorandum and Order (Scheduling Initial Prehearing Conference Regarding Contention Admissibility; Opportunity for Written Limited Appearance Statements) (Dec. 31, 2008) at 2-4 (unpublished); Licensing Board Memorandum and Order (Scheduling Initial Prehearing Conference; Providing Oral Argument Questions) (Jan. 14, 2009) at 1-3 (unpublished).

Station, Units 2 and 3), LBP-09-2, 69 NRC 87 (2009), regarding contentions similar to one or more of Joint Petitioners three contentions. As a consequence, the Board afforded the parties an opportunity to provide their views regarding the impact of these decisions on the admissibility of Joint Petitioners contentions in this proceeding. *See* Licensing Board Memorandum and Order (Request for Statements of Position and Notice of Need for More Time) (Feb. 18, 2009) (unpublished); Licensing Board Memorandum and Order (Amended Opportunity to Provide Statements of Position) (Feb. 19, 2009) (unpublished). On February 24, 2009, SNC, the Staff, and Joint Intervenors filed statements of position regarding those decisions. *See* Petitioners' Statement of Position (Feb. 24, 2009) [hereinafter Joint Petitioners Position Statement]; [SNC]'s Statement of Position (Feb. 24, 2009) [hereinafter SNC Position Statement]; NRC Staff Statement of Position (Feb. 24, 2009) [hereinafter Staff Position Statement].

II. ANALYSIS

A. Joint Petitioners Standing

1. Standards Governing Standing

In determining whether an individual or organization should be granted party status in a proceeding based on standing "as of right," the agency has applied contemporaneous judicial standing concepts that require a participant to establish (1) it has suffered or will suffer a distinct and palpable injury that constitutes injury-in-fact within the zones of interests arguably protected by the governing statutes (e.g., the AEA, the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321, *et seq.*); (2) the injury is fairly traceable to the challenged action; and (3) the injury is likely to be redressed by a favorable decision. *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996). In this regard, in cases involving the possible construction or operation of a nuclear power reactor, proximity to the proposed facility has been considered sufficient to establish the requisite standing elements. *See Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989). Further, when an entity seeks to intervene on behalf of its members, that entity must show it has an individual member who can fulfill all the necessary standing elements and who has authorized the organization to represent his or her interests. *See Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000). In assessing a petition to determine whether these elements are met, which a licensing board must do even though there are no objections to a petitioner's standing, the Commission has indicated that we are to "construe the petition in favor of the petitioner." *Georgia*

Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995).

We apply these rules and guidelines in evaluating each of Joint Petitioners standing presentations.

2. *Atlanta Women's Action for New Directions (Atlanta WAND)*

DISCUSSION: Intervention Petition at 5-7; SNC Answer at 3; Staff Answer at 10-11.

RULING: Atlanta WAND asserts it is a not-for-profit organization whose members oppose the issuance of a COL to SNC for the proposed Vogtle units. Attached to Joint Petitioners hearing request are the affidavits of two WAND members, each of whom states that Atlanta WAND is authorized to represent his or her interests. Both members assert they live within 50 miles of the VEGP site, one residing within 6 miles of the facility.³ The Board concludes these individuals' asserted health, safety, and environmental interests and their agreement to permit Atlanta WAND to represent their interests are sufficient to establish Atlanta WAND's standing to intervene in this proceeding.

3. *Blue Ridge Environmental Defense League (BREDL)*

DISCUSSION: Intervention Petition at 5-7; SNC Answer at 3; Staff Answer at 11-17.

RULING: BREDL claims it is a not-for-profit organization whose members oppose the issuance of a COL to SNC for the proposed Vogtle units. Attached to Joint Petitioners hearing request are the affidavits of forty-three BREDL members, each of whom states that BREDL is authorized to represent his or her interests. At least thirty-seven of these members assert they live within 50 miles of the VEGP site, with the closest living some 12 miles from the facility. The Board finds that these individuals' asserted health, safety, and environmental interests and their agreement to permit BREDL to represent their interests are sufficient to establish BREDL's standing to intervene in this proceeding.

³Relative to the individuals who provided affidavits in support of the standing of each of the organizations that constitute Joint Petitioners, the Board used Google Earth to confirm the distance from the VEGP of the individual purportedly residing nearest to the facility. *See* 10 C.F.R. § 2.337(f); *see also PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 20 n.11, *appeal denied*, CLI-07-25, 66 NRC 101 (2007).

4. *Center for a Sustainable Coast (CSC)*

DISCUSSION: Intervention Petition at 5-7; SNC Answer at 3; Staff Answer at 18-20.

RULING: CSC states it is a not-for-profit organization whose members oppose the issuance of a COL to SNC for the proposed Vogtle units. Attached to Joint Petitioners hearing request are the affidavits of two CSC members, each of whom declares that CSC is authorized to represent his interests. One member resides within 34 miles of the VEGP site. The Board concludes this individual's asserted health, safety, and environmental interests and his agreement to permit CSC to represent his interests are sufficient to establish CSC's standing to intervene in this proceeding.

5. *Savannah Riverkeeper (SR)*

DISCUSSION: Intervention Petition at 5-7; SNC Answer at 3; Staff Answer at 20-21.

RULING: SR declares it is a not-for-profit organization whose members oppose the issuance of a COL to SNC for the proposed Vogtle units. Attached to Joint Petitioners hearing request are the affidavits of two SR members, each of whom states that SR is authorized to represent his or her interests. Both live within 50 miles of the VEGP site, and one lives within 24 miles of the facility. The Board finds these individuals' asserted health, safety, and environmental interests and their agreement to permit SR to represent their interests are sufficient to establish SR's standing to intervene in this proceeding.

6. *Southern Alliance for Clean Energy (SACE)*

DISCUSSION: Intervention Petition at 5-7; SNC Answer at 3; Staff Answer at 21-22.

RULING: SACE asserts it is a not-for-profit organization whose members oppose the issuance of a COL to SNC for the proposed Vogtle units. Attached to Joint Petitioners hearing request are the affidavits of three SACE members, each of whom states that SACE is authorized to represent his or her interests. At least two members live within 50 miles of the VEGP site, with one as close as 28 miles from the facility. The Board finds these individuals' asserted health, safety, and environmental interests and their agreement to permit SACE to represent their interests are sufficient to establish SACE's standing to intervene in this proceeding.

B. Joint Petitioners Contentions

1. Contention Admissibility Standards

Section 2.309(f) of the Commission's rules of practice specifies the requirements that must be met if a contention is to be deemed admissible. Specifically, a contention must provide (1) a specific statement of the legal or factual issue sought to be raised; (2) a brief explanation of the basis of the contention; (3) a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at hearing; and (4) sufficient information demonstrating that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief. *See* 10 C.F.R. § 2.309(f)(1)(i), (ii), (v), and (vi). In addition, the petitioner must demonstrate that the issue raised in the contention is both "within the scope of the proceeding" and "material to the findings the NRC must make to support the action that is involved in the proceeding." *Id.* § 2.309(f)(1)(iii)-(iv). Failure to comply with any of these requirements is grounds for dismissing a contention. *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999); *see also Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991). NRC case law has further developed these requirements, as is summarized below:

a. Challenges to Statutory Requirements/Regulatory Process/Regulations

An adjudication is not the proper forum for challenging applicable statutory requirements or the basic structure of the agency's regulatory process. *See Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20, *aff'd in part on other grounds*, CLI-74-32, 8 AEC 217 (1974). Similarly, a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible. *See* 10 C.F.R. § 2.335; *Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974). This includes contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking. *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 159 (2001); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-93-1, 37 NRC 5, 29-30 (1993); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1656 (1982); *see also Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7,

43 NRC 235, 251 (1996); *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-91-19, 33 NRC 397, 410, *aff'd in part and rev'd in part on other grounds*, CLI-91-12, 34 NRC 149 (1991). By the same token, a contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue. *See Peach Bottom*, ALAB-216, 8 AEC at 20-21 & n.33.

b. Challenges Outside Scope of Proceeding

All proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to the Licensing Board. *See* 10 C.F.R. § 2.309(f)(1)(iii); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985). As a consequence, any contention that falls outside the specified scope of the proceeding must be rejected. *See Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289 n.6 (1979).

c. Need for Adequate Factual Information or Expert Opinion

It is the petitioner's obligation to present factual information and/or expert opinion necessary to support its contention. *See* 10 C.F.R. § 2.309(f)(1)(v); *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). While a Board may appropriately view a petitioner's supporting information in a light favorable to the petitioner, failure to provide such information regarding a proffered contention requires that the contention be rejected. *See Palo Verde*, CLI-91-12, 34 NRC at 155. In this connection, neither mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention. *See Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003). If a petitioner neglects to provide the requisite support for its contentions, it is not within the Board's power to make assumptions of fact that favor the petitioner, nor may the Board supply information that is lacking. *See Palo Verde*, CLI-91-12, 34 NRC at 155; *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 422 (2001); *Georgia Tech Research Reactor*, LBP-95-6, 41 NRC at 305. Likewise, simply attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the

admission of the contention. *See Fansteel*, CLI-03-13, 58 NRC at 204-05. Along these lines, any supporting material provided by a petitioner, including those portions of the material that are not relied upon, is subject to Board scrutiny. *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1996), *rev'd in part on other grounds*, CLI-96-7, 43 NRC 235 (1996). Thus, the material provided in support of a contention will be carefully examined by the Board to confirm that on its face it does supply adequate support for the contention. *See Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 48 (1989), *vacated in part on other grounds and remanded*, CLI-90-4, 31 NRC 333 (1990).

d. Materiality

To be admissible, the regulations require that all contentions assert an issue of law or fact that is material to the outcome of a licensing proceeding, meaning that the subject matter of the contention must impact the grant or denial of a pending license application. *See* 10 C.F.R. § 2.309(f)(1)(iv). This requirement of materiality often dictates that any contention alleging deficiencies or errors in an application also indicate some significant link between the claimed deficiency and either the health and safety of the public or the environment. *See Yankee Nuclear*, LBP-96-2, 43 NRC at 75-76; *see also Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 439-41 (2002), *petition for review denied*, CLI-03-12, 58 NRC 185, 191 (2003).

e. Insufficient Challenges to the Application

All properly formulated contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application (including the Safety Analysis Report and the Environmental Report) so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact. *See* 10 C.F.R. § 2.309(f)(1)(vi). Any contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue can be dismissed. *See Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined*, CLI-94-2, 39 NRC 91 (1994); *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992).

2. *Joint Petitioners Contentions*

a. *MISC-1 (AP1000 Revision 16) and MISC-2 (AP1000 Revision 17)*

CONTENTION MISC-1: SNC's COLA is incomplete because many of the major safety components and operational procedures of the proposed VEGP Units 3 and 4 either (1) have been omitted altogether or (2) are conditional at this time and will be for the indefinite future. Modifications to such safety components or operational procedures could cause substantial changes to the COLA. Regardless of whether the design of VEGP Units 3 and 4 is certified or not, a meaningful technical and safety review of the COLA cannot be conducted without the full disclosure of the final and complete reactor design.

CONTENTION MISC-2: SNC's COLA is incomplete because many of the major safety components and operational procedures at the proposed VEGP Units 3 and 4 either (1) have been omitted altogether or (2) are conditional at this time and will be for the indefinite future. Moreover, in connection with Westinghouse's submission of Revision 17, SNC is now required to either adopt Revision 17 or resubmit its COLA as a plant-specific design. Either course of action will require substantial changes to the COLA, which as currently drafted incorporates Revision 16 — a revision no longer being reviewed by the NRC Staff. Regardless of whether the design of VEGP Units 3 and 4 is certified or not, a meaningful technical and safety review of the COLA cannot be conducted without the full disclosure of the final and complete reactor design.

DISCUSSION: Intervention Petition at 8-14; SNC Answer at 11-26; Staff Answer at 23-39; Joint Petitioners Reply at 2-8; Tr. at 30-80; Joint Petitioners Position Statement at 5-6; SNC Position Statement at 5-8; Staff Position Statement at 1-3.

RULING: As Joint Petitioners noted during oral argument, *see* Tr. at 30-31, these contentions are essentially identical except that MISC-1 deals with revision 16 to the AP1000 certified design, while MISC-2 concerns the more recently submitted revision 17. Because we find that the admissibility of both are governed by the same precepts, we deal with them in the same ruling, finding them *inadmissible* in that these contentions and their foundational support, having failed to proffer a specific, sufficiently supported, material issue regarding a safety concern associated with the interaction between the pending AP1000 DCD revisions and the Vogtle COLA, are an impermissible challenge to Commission regulatory requirements. *See* Sections II.B.1.a, .c, .d, .e, *supra*. Moreover, as is explained in more detail below, because of the novel, generic aspects of these contentions, we refer this ruling to the Commission.

On January 27, 2006, the Commission issued the AP1000 final design certification rule (DCR), based on revision 15 of the WEC design certification document (DCD). *See* AP1000 Design Certification, 71 Fed. Reg. 4464 (Jan. 27, 2006). As

a consequence, applicants seeking to construct and operate a plant based on the AP1000 design can do so by referencing this DCR, as set forth in 10 C.F.R. Part 52, App. D. *See* 10 C.F.R. § 52.73(a). Subsequently, however, in a May 26, 2007 letter, WEC submitted an application to amend the AP1000 DCR via revision 16 of the AP1000 DCD. This was followed on September 22, 2008, by an updated application to amend the AP1000 DCD.⁴ That update, revision 17, contains both the DCD changes submitted in revision 16 as well as new DCD changes.⁵ Both DCD revision 16, which is referenced in the SNC COLA for Vogtle Units 3 and 4,⁶ and revision 17, which has not yet been referenced in the SNC application,⁷ currently are under review by the NRC Staff and are likely to continue to be so for some time to come as part of a design certification rulemaking process.

As framed by Joint Petitioners two contentions, the current situation now before the Board and the participants — i.e., a Part 52 COLA referencing a CSD that, while previously approved, now faces potential modification in the form of pending DCD revisions that both have and have not been incorporated into the COLA — is no doubt one the Commission hoped reactor designers and COL applicants would avoid so as to maximize the longstanding “reliability” and “finality” hallmarks of the Part 52 CSD, ESP, and COL processes.⁸ At the same time, this is a happenstance the Commission has recognized may occur, and

⁴These documents relating to the pending AP1000 revisions 16 and 17, as well as information on the current status of the AP1000 revisions, currently can be found at www.nrc.gov/reactors/new-reactors/design-cert/amended-ap1000.html (last visited Mar. 4, 2009).

⁵As the Staff observed in its answer, in proffering AP1000 CSD revision 16, WEC republished the entire DCD with various amendments. *See* Staff Answer at 30. According to the Staff, revision 17 takes a similar approach, in that it incorporates the revision 16 proposed DCD amendments as well as proposes additional changes to the AP1000 CSD. *See id.* at 36-37. Although the Staff is no longer reviewing revision 16 as a separate submission because it is subsumed by revision 17, *see id.*, since SNC has yet to reference revision 17, in this decision we will refer separately to each revision.

⁶*See* Letter from J. A. Miller, SNC Senior Vice President, to NRC Document Control Desk at 1 (Mar. 28, 2008) (Vogtle Units 3 and 4 COLA incorporates by reference 10 C.F.R. Part 52, App. D, and May 26, 2007 WEC application for revision 16 amendment to portions of AP1000 DCD) (ADAMS Accession No. ML081050133).

⁷During the January 28 oral argument, SNC counsel indicated the Applicant intends to reference revision 17 in its COLA in March or April 2009. *See* Tr. at 54-55.

⁸*See* Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors, 54 Fed. Reg. 15,372, 15,376 (Apr. 18, 1989) (achieving enhanced safety that standardization makes possible will be frustrated by permitting too frequent changes to either CSD or plants referencing CSD); *see also* Licenses, Certifications, and Approvals for Nuclear Power Plants, 72 Fed. Reg. 49,352, 49,368 (Aug. 28, 2007) (Commission goals for design certification include early resolution of all design issues and finality for those issue resolutions, which would avoid repetitive consideration of design issues in individual COL proceedings).

could result in a properly framed contention being admitted and held in abeyance pending resolution of the DCR.⁹

In this instance, referencing various specific portions of the Vogtle Units 3 and 4 COLA that purportedly would be affected by the DCD amendments in pending revisions 16 and 17 and citing a recent Licensing Board decision in *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), LBP-08-21, 68 NRC 554, 562-64 (2008) (appeal pending with the Commission), Joint Petitioners assert that because these DCD amendments have not been approved in a design certification rulemaking (and, in the case of revision 17, are not yet even referenced in the Vogtle Units 3 and 4 COLA), contentions MISC-1 and MISC-2 are contentions of omission that must be admitted and referred to the Staff for consideration in the design certification rulemaking while being held in abeyance by the Board pending resolution of the efficacy of the proposed revisions. On the other hand, declaring that Joint Petitioners have not raised any specific technical deficiency regarding any of the provisions of the COLA that would be impacted by the proposed WEC AP1000 DCD revisions 16 and 17, all of which they assert are accounted for in the AP1000 standard design and the COLA, and relying on recent Licensing Board decisions in *Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 68 NRC 431, 442-43 (2008), and *Summer*, LBP-09-2, 69 NRC at 97-100,¹⁰ both SNC and the Staff assert that these two contentions should be dismissed for a combination of deficiencies, including being beyond the scope of this COL proceeding, failing to raise a material issue or a genuine dispute on a material issue of law or fact, lacking competent factual or expert support, and improperly challenging NRC regulations.

⁹ See *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1, 3-4 & nn.5, 8 (2008) (argument that COLA hearing notice should be delayed until completion of certified design rulemaking for AP1000, revision 16, fails to recognize Commission direction that a contention raised in COL hearing challenging information in a design certification rulemaking, if otherwise admissible, should be referred to the Staff for consideration in the rulemaking, and held in abeyance by licensing board pending outcome of rulemaking) (citing 10 C.F.R. § 52.55(c) and Conduct of New Reactor Licensing Proceedings; Final Policy Statement, 73 Fed. Reg. 20,963, 20,972 (Apr. 17, 2008)); see also *Fermi*, CLI-09-4, 69 NRC at 84 (consistent with its *Shearon Harris* decision, Commission declines to suspend proceeding pending outcome of ESBWR design certification process).

¹⁰ Applicant SNC also relies on another, more recent ruling in the *Shearon Harris* COL proceeding in which the Licensing Board denied the admission of a new contention challenging the sufficiency of the COLA in light of the applicant's action incorporating AP1000 DCD revision 17 into its application. See Tr. at 58-59; see also Letter from M. Stanford Blanton, SNC Counsel, to Licensing Board (Jan. 29, 2009) (enclosing copy of *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), Licensing Board Memorandum and Order (Ruling on Request to Admit New Contention) (Dec. 23, 2008) (unpublished)).

Absent a future exemption request, SNC cannot obtain a COL for Vogtle Units 3 and 4 until the DCR process for COLA-referenced revision 16 (and the apparently soon-to-be-referenced revision 17) is completed by incorporating any COLA-referenced revisions into the AP1000 CSD. *See* Staff Answer at 31 n.35. At the same time, both contentions MISC-1 and MISC-2 reflect Joint Petitioners concern about whether, under the more stringent admissibility requirements that apply generally to contentions that are submitted after a timely initial hearing petition, they will have a “realistic opportunity” to interpose a post-DCR challenge to the completeness and adequacy of the SNC COLA relative to any DCD revisions resulting from such a rulemaking.¹¹ Tr. at 39.

While perhaps not untoward, this concern about the travails of the post-initial intervention contention admission process nonetheless does not provide the basis for the sort of open-ended, placeholder contentions Joint Petitioners now seek to have admitted. Rather than asserting, based on documentary material or expert analysis, that some particular facet of the proposed DCD changes set forth in revisions 16 or 17 creates a safety issue or has a safety impact relative to some specific aspect of either the existing AP1000 CSD or the two new Vogtle units, the focus of contentions MISC-1 and MISC-2 is a generalized concern that because the design issues reflected in revisions 16 and 17 will remain unresolved pending the completion of the AP1000 DCR to incorporate these changes, the SNC COLA is somehow fatally incomplete. *See* Joint Petitioners Reply at 4 n.6. But given that a pending DCD revision clearly can be referenced in a COLA, *see* 10 C.F.R. § 52.55(c), Joint Petitioners failure in contentions MISC-1 and MISC-2 to frame a specific, sufficiently supported, material issue regarding a safety concern arising from the interaction of the proposed DCD amendments with the existing CSD and/or the facility-specific provisions of the Vogtle COLA leaves these contentions as no more than inadmissible challenges to the Part 52 regulatory framework.

That these particular contentions are inadmissible does not necessarily render Joint Petitioners concerns about their future ability to question the Vogtle COLA-related safety impacts of proposed AP1000 DCD revisions 16 and 17 as wholly without merit. Assuming that a post-DCR COLA-related safety issue can be framed, uncertainty about the appropriate application of the various “late-filing” factors in section 2.309 that govern the admission of new or amended contentions¹²

¹¹ Although they undoubtedly can participate in the DCR process relative to revisions 16 or 17 to interpose any technical concerns about the sufficiency or adequacy of these revisions relative to the existing AP1000 DCD, *see* Tr. at 64, 72, Joint Petitioners provided no indication whether they intend to institute such a challenge.

¹² In contrast to Commission references suggesting the general application of the “nontimely” filing standards in section 2.309(c) to new and amended contentions, *see Nuclear Management Co.*,
(Continued)

and the applicability of the reopening standards of section 2.326,¹³ presents a situation not wholly unlike that recently before the Commission in the *MOX* proceeding. There, the Commission acted to clarify the application of these procedural provisions in an instance when, due to factors beyond the intervenor's control, the distinct possibility existed that issues might arise regarding the sufficiency of a pending license application sometime after the adjudication on admitted contested issues would have been concluded. *See MOX*, CLI-09-2, 69 NRC at 63-66.

Given that appeals from the *Shearon Harris* COL case, upon which Joint Petitioners place significant reliance in seeking the admission of this contention, and the *Summer* COL proceeding currently are pending with the Commission, consistent with the general policy preference expressed by the Commission for obtaining generic consideration and resolution of issues posed in several COL proceedings, *see* Conduct of New Reactor Licensing Proceedings; Final Policy Statement, 73 Fed. Reg. 20,963, 20,971-72 (Apr. 17, 2008), pursuant to 10 C.F.R. §§ 2.323(f), 2.341(f), we find this a significant and novel matter whose resolution will materially advance the disposition of this (and other) proceedings such that we will refer our ruling regarding these contentions to the Commission for its immediate consideration.

b. SAFETY-1 (Disposal of LLRW)

CONTENTION: SNC's COLA is incomplete because the FSAR fails to consider how SNC will comply with NRC regulations governing storage and disposal of

LLC (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006); *see also Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 65 & n.47 (2009), as the Licensing Board in the *Vogtle ESP* case observed recently in dealing with the admissibility of a new contention, there are several Licensing Board decisions that indicate the language of section 2.309(f)(2) adopted in the extensive 2004 10 C.F.R. Part 2 revision makes it clear those standards are not applicable in the context of new or amended contentions, at least so long as the new or amended contention is "timely" filed relative to the event that provides the triggering basis for that contention, *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), Licensing Board Memorandum and Order (Ruling on Motion to Admit New Contention) (Oct. 24, 2008) at 10 & nn.5-6 (unpublished).

¹³Relative to the application of the agency's section 2.326 record reopening standards at a point late in a proceeding, there may well be a difference between, on the one hand, an instance in which a new intervention petition and/or contention is filed after any evidentiary hearing regarding admitted contentions has been conducted and the record closed and, on the other, a circumstance in which (1) all participant contentions previously admitted in the proceeding have been resolved by settlement or summary disposition prior to holding an evidentiary hearing; or (2) following the initial hearing opportunity notice for the proceeding, no hearing request was submitted or no submitted hearing request was granted.

LLRW in the event an off-site waste disposal facility remains unavailable when VEGP Units 3 and 4 begin operations.

DISCUSSION: Intervention Petition at 14-16; SNC Answer at 26-32; Staff Answer at 40-49; Joint Petitioners Reply at 8-12; Tr. at 80-109; Joint Petitioners Position Statement at 2-5; SNC Position Statement at 1-5; Staff Position Statement at 3-5.

RULING: As discussed below, *admitted* in that this contention and its foundational support are sufficient to establish a genuine material dispute adequate to warrant further inquiry.

Stemming from the alleged potential unavailability of a disposal site for 10 C.F.R. § 61.55(a) Class B or C LLRW for proposed Vogtle Units 3 and 4 due to the recent closure of the Barnwell, South Carolina low-level waste disposal facility to all waste other than that from facilities located in Connecticut, New Jersey, and South Carolina, this contention is similar to contentions admitted by licensing boards in the *North Anna* and *Bellefonte* COL proceedings. *See Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 313-21 (2008); *Tennessee Valley Authority* (Bellefonte Nuclear Power Plant Units 3 and 4), LBP-08-16, 68 NRC 361, 413-15 (2008), *rev'd*, CLI-09-3, 69 NRC at 72-75. Joint Petitioners assert that the SNC final safety analysis report (FSAR) “contains no explanation of the specific waste management actions SNC will take if there is still no waste disposal facility available for Class B and C waste when VEGP Units 3 and 4 begin operations” and “fails to demonstrate how SNC can comply with the NRC regulations regarding LLRW disposal using only the existing storage facilities (designated for VEGP Units 1 and 2).” Intervention Petition at 14. Additionally, Joint Petitioners contend that the FSAR “does not address long term storage procedures or realistically consider the size and space limitations of the existing storage facilities” and “omits a discussion of the health impacts on SNC employees from the additional LLRW storage.” *Id.* at 16.

SNC counters that this contention fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(iv), (v), and (vi) in that (1) addressing LLRW disposal, as defined in 10 C.F.R. Part 61, is not required in a COL application and is therefore not material to the proceeding, (2) the information Joint Petitioners claim to be omitted is in fact present in the FSAR, and therefore Joint Petitioners do not raise a material issue of fact or law, and (3) the contention is not supported by alleged facts or expert opinion. *See* SNC Answer at 27-29. The Staff also opposes admission of this contention, arguing that the purportedly omitted information is in fact in the FSAR, no disposal discussion is required in a COLA, and Joint Petitioners fail to support the claim that any additional monitoring of occupational exposure specifically related to LLRW storage needs to be addressed. *See* Staff Answer at 41-48. Additionally, both SNC and the Staff asserted at oral argument that the

contention is inadmissible because a COL applicant is not required under NRC regulations to address extended onsite LLRW storage. *See* Tr. at 86, 95-96.

Joint Petitioners contention SAFETY-1 clearly meets the requirements of 10 C.F.R. § 2.309(f)(1)(i) and (iii). It provides a statement of the issue of law or fact Joint Petitioners seek to raise, *see* 10 C.F.R. § 2.309(f)(1)(i), namely that certain information was omitted concerning storage of LLRW in the absence of an offsite disposal facility that should have been included in the COLA for proposed Vogtle Units 3 and 4. Moreover, because Joint Petitioners challenge the legal sufficiency of the COLA, the contention is within the scope of this proceeding. *See* 10 C.F.R. § 2.309(f)(1)(iii).

Joint Petitioners have also provided sufficient factual allegations to support contention SAFETY-1 so as to satisfy 10 C.F.R. § 2.309(f)(1)(v). Contention SAFETY-1 is a contention of omission. As such, Joint Petitioners need only “‘identify[] the regulatively required missing information’” and provide enough facts to show that the application is incomplete. *See North Anna*, LBP-08-15, 68 NRC at 317 (quoting *Pa’ina Hawaii, LLC*, LBP-06-12, 63 NRC 403, 414 (2006)). Joint Petitioners have identified the information they claim to be missing: they assert the FSAR should have discussed how SNC will comply with NRC regulations for waste storage and disposal in the absence of offsite disposal for the LLRW the new Vogtle units will produce, specifically noting that the FSAR “‘does not address long term storage procedures or realistically consider the size and space limitations of the existing storage facilities’” and “‘omits a discussion of the health impacts on SNC employees from the additional LLRW storage.’” *See* Intervention Petition at 16.

Additionally, Joint Petitioners satisfy the requirement of 10 C.F.R. § 2.309(f)(1)(ii) to provide a brief explanation of the basis of the contention. Joint Petitioners claim that SNC’s COLA omits information necessary to satisfy “‘NRC regulations governing storage,’” Intervention Petition at 14, which they clarified in their reply and at oral argument as 10 C.F.R. § 52.79(a)(3) and, through it, the radiation exposure limits of 10 C.F.R. Part 20.¹⁴ *See* Joint Petitioners Reply at 10; Tr. at 99-101, 108. We find that this information constitutes a sufficient basis under 10 C.F.R. § 2.309(f)(1)(ii). In this regard, contention SAFETY-1 is distinguishable from the LLRW contention in the *Bellefonte* COL proceeding, the admission of which the Commission recently reversed. *See* CLI-09-3, 69 NRC at 69-70. Unlike the contention admitted in the *Bellefonte* COL proceeding, which focused entirely on the regulations governing waste disposal, *see id.* at 72, contention SAFETY-1 concerns “‘how SNC will comply with NRC regulations

¹⁴We note that neither SNC nor the Staff objected at any point in the proceeding to Joint Petitioners having specifically cited section 52.79(a)(3) for the first time in their reply and, indeed, both SNC and the Staff provide the same legal citation in support of their own arguments at the January 28, 2009 prehearing conference, *see* Tr. at 86, 93.

governing *storage* and disposal of LLRW.” Intervention Petition at 14 (emphasis added). Thus, as Joint Petitioners point out, their contention is based not only on the 10 C.F.R. Part 61 grounds rejected in *Bellefonte* but also on Parts 20 and 52. See Joint Petitioners Position Statement at 3. What the Staff refers to as a “minor difference in wording,” Staff Position Statement at 4, therefore distinguishes contention SAFETY-1 from the *Bellefonte* LLRW contention.¹⁵ Though we conclude below that Joint Petitioners invocation of 10 C.F.R. Part 61, which governs waste disposal, is immaterial to this proceeding, we also find that contention SAFETY-1 is supported by an adequate alternative basis, namely 10 C.F.R. Parts 20 and 52.¹⁶

Relative to 10 C.F.R. § 2.309(f)(1)(iv), both SNC and the Staff assert that contention SAFETY-1 does not address an issue that is material to this proceeding because NRC regulations do not require a COL applicant to address long-term LLRW storage.¹⁷ See Tr. at 86, 95-96. Joint Petitioners, on the other hand, argue that the requirement in 10 C.F.R. § 52.79(a)(3) for a COLA to address “[t]he kinds and quantities of radioactive materials expected to be produced in the operation and the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in [10 C.F.R. Part 20]” means that an applicant must address long-term management of LLRW. See Joint Petitioners Reply at 10; Tr. at 99-101. While section 52.79(a)(3) does not explicitly speak to long-term storage of LLRW or any specific amount of waste storage, we do not see how, if offsite disposal for LLRW remains unavailable, a COL applicant could address compliance with 10 C.F.R. Part 20 limits in accordance with section 52.79(a)(3) without addressing what it intends to do with the LLRW (which certainly qualifies as radioactive material) expected to be produced in the operation of the proposed units. Thus, because an applicant’s compliance with 10 C.F.R. § 52.79 is a material part of what the agency must assess in a COL

¹⁵ We would add that we do not find our determination here inconsistent with the Commission’s ruling in *Bellefonte*, in which the Commission stated “we do not rule out that, in a future COL proceeding, a petitioner could proffer an application-specific contention suitable for litigation on the subject of onsite storage of low-level radioactive waste.” CLI-09-3, 69 NRC at 77 n.42.

¹⁶ The Commission noted in reversing the *Bellefonte* Board’s decision that “[w]e cannot tell from the *Bellefonte* decision which of the remaining grounds the *Bellefonte* Board was relying on.” *Bellefonte*, CLI-09-3, 69 NRC at 73. This Board, by contrast, finds that Joint Intervenors have satisfied the basis requirement of 10 C.F.R. § 2.309(f)(1)(ii) by asserting that SNC’s COLA fails to comply with the agency’s regulations concerning LLRW storage, which, as we discuss below, are material to this proceeding. In addition, this contention, in contrast to one of the LLRW contentions under consideration in the *Bellefonte* proceeding, is a safety, as opposed to environmental, issue that places no reliance on Table S-3, 10 C.F.R. § 51.51(b), a reference the Commission found fatal to that *Bellefonte* contention’s admissibility. See CLI-09-3, 69 NRC at 74-75.

¹⁷ In this regard, SNC and the Staff both argue that *North Anna* was wrongly decided. The *North Anna* Board explicitly found extended onsite storage of LLRW to be material to a licensing board’s determinations under 10 C.F.R. Part 52, see *North Anna*, LBP-08-15, 68 NRC at 315.

proceeding, the question of how SNC intends to handle LLRW in the absence of an offsite disposal facility is material to the findings the agency must make.

To the extent, however, this contention raises the issue of SNC's future compliance with 10 C.F.R. Part 61, that portion of the agency's regulations is not material to this proceeding. *See North Anna*, LBP-08-15, 68 NRC at 316-17; *Bellefonte*, LBP-08-16, 68 NRC at 414; *see also Bellefonte*, CLI-09-3, 69 NRC at 72-73 (Part 61 inapplicable to onsite storage of licensee's own LLRW).

Additionally, both SNC and the Staff argue that Joint Petitioners have not identified a genuine dispute with SNC on a material point of law or fact as required by 10 C.F.R. § 2.309(f)(1)(vi) because the information Joint Petitioners claim has been omitted is in fact in the COLA. *See SNC Answer* at 28-29, NRC Staff Answer at 41-45, Tr. at 87, 97. SNC and the Staff point to a sentence in SNC's FSAR noting that "should disposal facilities not be available, the planned VEGP Units 1 and 2 Low Level Radwaste Storage Facility will be available to provide storage for VEGP Units 3 and 4." [SNC], Vogtle Electric Generating Plant, Units 3 & 4 COL Application, Part 2, Final Safety Analysis Report § 11.4.6.3, at 11.4-2 (rev. 0 Mar. 2008); *see also SNC Answer* at 28, NRC Staff Answer at 41. SNC and the Staff further point to statements in the Supplement to the Generic Environmental Impact Statement (SGEIS) for the renewal of SNC's licenses for Vogtle Units 1 and 2 concerning the proposed new LLRW storage facility, *see SNC Answer* at 28-29, NRC Staff Answer at 42. In this regard, the Vogtle Units 1 and 2 SGEIS notes that SNC

is developing several design concepts to provide for on-site low-level radioactive waste storage. One design concept being considered is to use a shielded storage pad with individual compartments for the placement of high integrity containers containing radioactive wastes. The shielding will be designed to ensure that the off site dose does not exceed any of the Federal limits specified in 10 CFR Part 20, as well as the Environmental Protection Agency's (EPA) radiation standards in 40 CFR Part 190.

Office of Nuclear Reactor Regulation, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 34, Regarding Vogtle Electric Generating Plant, Units 1 and 2, NUREG-1437, at 2-14 (Supp. 34 Dec. 2008) (ADAMS Accession No. ML083380325). The Vogtle Units 1 and 2 SGEIS, in turn, references a series of internal SNC documents, including a document entitled Vogtle Electric Generating Plant — Units 1&2: Conceptual Design for a Low Level Radwaste Pad at Plant Vogtle, which describes a possible design for the LLRW storage facility. *See id.*; Vogtle Electric Generating Plant — Units 1&2: Conceptual Design for a Low Level Radwaste Pad at Plant Vogtle (Apr. 30, 2007) (ADAMS Accession No. ML073240581) [hereinafter Radwaste Pad Conceptual Design Memo].

None of this detail is included or explicitly referenced in the FSAR of the Vogtle Units 3 and 4 COLA. It is difficult to imagine how either a reviewer or a potential intervenor could know based on the FSAR to examine the environmental impact statements (as opposed to the safety-related documents) associated with the Vogtle Units 1 and 2 license renewal proceeding and from there find the April 2007 conceptual design documents. And the single sentence in the FSAR referring to the “planned VEGP Units 1 and 2 Low Level Radwaste Storage Facility,” without more, would not seem to provide the level of detail necessary to determine whether SNC’s plan for handling LLRW from proposed Vogtle Units 3 and 4 in the absence of an offsite disposal facility would comply with 10 C.F.R. Part 20 limits. Moreover, even if we accept that this reference would be enough to incorporate into the SNC COLA FSAR the VEGP Units 1 and 2 life extension SGEIS discussion and the associated SNC storage study to which SNC and the Staff refer us,¹⁸ the discussion and analysis in both documents make it clear that what is being considered is no more than a “concept” that lacks SNC adoption as an actual plan for longer-term LLRW storage for the proposed Vogtle units.¹⁹ Thus, Joint Petitioners raise a genuine dispute as to whether information on SNC’s extended LLRW storage plan that should have been included has been omitted from the COLA for Vogtle Units 3 and 4.

We therefore admit this contention, as set forth in Appendix A,²⁰ as having satisfied the requirements of 10 C.F.R. § 2.309(f)(1).

III. PROCEDURAL/ADMINISTRATIVE MATTERS

In accord with the discussion above, Joint Petitioners are admitted as parties to this proceeding because they have established standing and have set forth at least one admissible contention. *See* 10 C.F.R. § 2.309(a)(1). Below is procedural guidance for further litigating the above-admitted contention.

¹⁸ It also is not clear why, if the matter of LLRW storage sufficiency is significant enough to merit some Staff discussion in the context of the Vogtle Units 1 and 2 renewal proceeding, it does not deserve equivalent treatment in the SNC COLA for Vogtle Units 3 and 4.

¹⁹ In this regard, we note that the April 2007 analysis makes the observation that “[d]uring the design phase a [10 C.F.R. §] 50.59 evaluation will be required for the Low Level Radwaste Pad for Plant Vogtle.” Radwaste Pad Conceptual Design Memo at 2. This not only emphasizes the preliminary nature of this potential SNC LLRW storage approach, but suggests that there may be somewhat more uncertainty associated with the need for agency approval of the design than SNC and Staff counsel indicated during the January 28 oral argument. *See* Tr. at 89-90, 94-95.

²⁰ In admitting this contention, we reword it to ensure that the focus of any litigation is over the omission that is at the heart of Joint Petitioners concern, i.e., the failure to provide any detail concerning how SNC plans to handle extended onsite storage of LLRW from proposed Vogtle Units 3 and 4 in the absence of an offsite disposal facility.

Given there was no request in Joint Petitioners hearing petition pursuant to 10 C.F.R. § 2.309(g) to conduct this proceeding under the procedures for a formal hearing specified in 10 C.F.R. Part 2, Subpart G, unless all parties agree that this proceeding should be conducted pursuant to 10 C.F.R. Part 2, Subpart N, this proceeding will be conducted as an informal hearing in accordance with the procedures of 10 C.F.R. Part 2, Subparts C and L. Assuming all the parties currently do not consent to conducting this proceeding under Subpart N, the parties should conduct a conference within 10 days of the date of this issuance to discuss their particular claims and defenses and the possibility of settlement or resolution of any part of this proceeding and to make arrangements for the required disclosures under 10 C.F.R. §§ 2.336(a), (b), 2.1203.²¹

The Board will oversee the discovery process through status reports and/or conferences, and expects that each of the parties will comply with the process to the maximum extent possible, with the understanding that failing to do so will result in appropriate Board sanctions.²²

Pursuant to 10 C.F.R. § 2.332(d), the Board is to consider the Staff's projected schedule for completion of its safety and environmental evaluations in developing the hearing schedule. Accordingly, on or before *Monday, March 16, 2009*, the Staff shall submit to the Board through the E-Filing system a written estimate of its projected schedule for completion of its safety and environmental evaluations, including but not limited to its best estimate of the dates for issuance of its open

²¹ Among the items to be discussed is whether the Staff's section 2.336(b) hearing file can be provided electronically via the NRC website sooner than 30 days from the date of this issuance. In that regard, in accord with section 2.336(b), the Staff should create an electronic hearing file. The Staff shall make available to the parties and the Licensing Board a list that contains the ADAMS accession number, date, and title of each item so as to make the item readily retrievable from the agency's website, www.nrc.gov, using the ADAMS "Find" function. Additionally, the Staff should create (or have created) a separate folder in the agency's Electronic Hearing Docket (EHD) associated with the Vogtle COL proceeding. Thereafter, the Staff should provide notice to the other parties and the Licensing Board regarding the availability of the Hearing File materials in the EHD.

If the Staff thereafter provides any updates to the hearing file, it should place a copy of those items in the hearing file portion of the Vogtle COL EHD folder and indicate it has done so in a notification regarding the update that is sent to the Licensing Board and the parties. Additionally, if at any juncture the Staff anticipates placing any nonpublic documents into the hearing file for this proceeding, it should promptly notify the Licensing Board of that intent prior to placing those documents into the Vogtle COL EHD hearing file folder and await further instructions regarding those documents from the Licensing Board.

²² In this regard, when a party claims a privilege and withholds information otherwise discoverable under the rules, the party shall expressly make the claim and describe the nature of what is not being disclosed to the extent that, without revealing what is sought to be protected, other parties will be able to determine the applicability of the privilege or protection. The claim and identification of privileged materials must occur within the time provided for disclosing withheld materials. See 10 C.F.R. § 2.336(a)(3), (b)(5).

item and final safety evaluation reports and the draft and final environmental impact statements relative to Vogtle Units 3 and 4.

The Board will then conduct a prehearing conference to discuss initial discovery disclosures, scheduling, and other matters on a date to be established by the Board in a subsequent order. The parties should be prepared to address the following matters at the prehearing conference:

1. Estimates (discussed during their meeting) regarding when this case will be ready to go to hearing and the time necessary to try the admitted contention if it were to go to hearing.
2. Establishing time limits for updating mandatory disclosures under 10 C.F.R. § 2.336(d) and for updating the hearing file under 10 C.F.R. § 2.1203(c).
3. Whether their discussions regarding mandatory disclosures under 10 C.F.R. § 2.336 accounted for the disclosure of electronically stored information (ESI). *See* Fed. R. Civ. P. 16(b)(5); *id.* 26(a)(1)(B).
4. Whether any party intends to assert a privilege or protected status for any information or documents otherwise required to be disclosed herein and, if so, proposals for the submission of privilege logs under 10 C.F.R. § 2.336(a)(3), (b)(5), procedures and time limits for challenges to such assertions, and the development of a protective order and nondisclosure agreement.
5. Whether any of the parties anticipate submitting a motion for summary disposition regarding the admitted contention and the timing and page length of such a motion and responses thereto.
6. Establishing time limits for filing “timely” motions for leave to file new or amended contentions under 10 C.F.R. § 2.309(f)(2)(iii), and specifying pleading rules for motions for leave to file new or amended contentions that accommodate both 10 C.F.R. § 2.323 (motions and answers to motions) and 10 C.F.R. § 2.309(h) (answers and replies to contentions).
7. Establishing time limits for various evidentiary hearing-related filings, including:
 - a. The final list of potential witnesses for each contention pursuant to 10 C.F.R. § 2.336(a)(1).
 - b. Any motion for the use of Subpart G hearing procedures pursuant to 10 C.F.R. § 2.310(d).
 - c. Any unanimous request, pursuant to 10 C.F.R. § 2.310(h), to handle the admitted contention under 10 C.F.R. Part 2, Subpart N.

- d. Any motion for cross-examination under 10 C.F.R. § 2.1204(b).
 - e. The parties' initial written statements of position and written direct testimony with supporting affidavits pursuant to 10 C.F.R. § 2.1207(a)(1), along with consideration of (i) whether the parties should file simultaneously or sequentially, and, if sequentially, which party should file first; and (ii) the timing of filing of written responses, rebuttal testimony, and in limine motions relative to direct or rebuttal testimony.
8. The items outlined in 10 C.F.R. § 2.329(c)(1)-(3).
 9. The possibility of settling the admitted contention, in whole or in part, including the status of any current settlement negotiations and the utility of appointing a settlement judge pursuant to 10 C.F.R. § 2.338(b).
 10. Whether a site visit would be appropriate and helpful to the Board in the resolution of the contention.
 11. Any other procedural or scheduling matters the Board may deem appropriate.

IV. CONCLUSION

For the reasons set forth above, we find that each of the organizations that constitute Joint Petitioners has established its standing to intervene and that they have put forth one litigable contention so as to be entitled to party status in this proceeding. The text of Joint Petitioners admitted contention is set forth in Appendix A to this decision.

For the foregoing reasons, it is this 5th day of March 2009, ORDERED, that:

1. Relative to the contentions specified in paragraph 2, below, Joint Petitioners hearing request is *granted* and those petitioners are admitted as parties to this proceeding.
2. The following Joint Petitioner contention is *admitted* for litigation in this proceeding: SAFETY-1.
3. The following Joint Petitioner contentions are *rejected* as inadmissible for litigation in this proceeding: MISC-1 and MISC-2.
4. The parties are to take the actions required by Section III, above, in accordance with the schedule established herein.
5. In accordance with the provisions of 10 C.F.R. §§ 2.323(f), 2.341(f), and the discussion in Section II.B.2.a, above, the Licensing Board refers its

ruling regarding the admissibility of contentions MISC-1 and MISC-2 to the Commission.

6. In accordance with the provisions of 10 C.F.R. § 2.311, as it rules upon an intervention petition, any appeal to the Commission from this Memorandum and Order must be taken within ten (10) days after it is served.

THE ATOMIC SAFETY AND
LICENSING BOARD²³

G. Paul Bollwerk, III, Chairman
ADMINISTRATIVE JUDGE

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

James Jackson
ADMINISTRATIVE JUDGE

Rockville, Maryland
March 5, 2009

²³ Copies of this Memorandum and Order were sent this date by Internet e-mail transmission and the agency's E-Filing system to counsel for (1) Applicant SNC; (2) Joint Petitioners; and (3) the Staff.

APPENDIX A

ADMITTED CONTENTION

1. SAFETY-1: LOW-LEVEL RADIOACTIVE WASTE STORAGE

CONTENTION: SNC's COLA is incomplete because the FSAR fails to provide any detail as to how SNC will comply with NRC regulations governing storage of LLRW in the event an off-site waste disposal facility remains unavailable when VEGP Units 3 and 4 begin operations.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ronald M. Spritzer, Chairman
Dr. Gary S. Arnold
Dr. William W. Sager

In the Matter of

Docket No. 52-016-COL
(ASLBP No. 09-874-02-COL-BD01)
(Combined License Application)

**CALVERT CLIFFS 3 NUCLEAR
PROJECT, LLC, and UNISTAR
NUCLEAR OPERATING
SERVICES, LLC**
**(Calvert Cliffs Nuclear Power
Plant, Unit 3)**

March 24, 2009

**RULES OF PRACTICE: STANDING; 50-MILE PROXIMITY
PRESUMPTION**

There is no conflict between judicial concepts of standing and the NRC's 50-mile presumption of standing. The presumption does not permit persons with no actual or imminent claim of injury to obtain a hearing. On the contrary, the "common thread" in the decisions applying the 50-mile presumption is a recognition of the potential effects at significant distances from the facility of the accidental release of fissionable materials. The increased risk of living within 50 miles of the plant constitutes injury-in-fact, is traceable to the challenged action (the NRC's licensing of a new nuclear reactor), and is likely to be redressed by a favorable decision that either denies a license or mandates compliance with legal requirements that protect the interests of the petitioners.

RULES OF PRACTICE: COMMISSION AND APPEAL BOARD PRECEDENT

Licensing boards are bound by Commission and appeal board precedent and therefore are not at liberty to reject the 50-mile presumption.

RULES OF PRACTICE: STANDING; 50-MILE PROXIMITY PRESUMPTION

The rationale for the 50-mile presumption does not depend upon the probability that a proposed reactor is likely to generate an accidental release of radioactive materials, but rather the fact that, if such an accident were to occur, it could realistically impact the geographic area within which the petitioners reside.

RULES OF PRACTICE: STANDING; 50-MILE PROXIMITY PRESUMPTION

Although the Commission has encouraged licensing boards to apply contemporaneous concepts of standing, the ultimate test is not whether the NRC's test for standing conforms to that applied by federal courts, but whether the NRC's test represents a reasonable construction of section 189a of the Atomic Energy Act. As long as the petitioners reside within an area that could realistically be impacted if an accidental release occurs, it is reasonable and consistent with section 189a to find that they have standing to challenge Applicant's safety claims and its environmental analysis under NEPA.

RULES OF PRACTICE: EIE FILING REQUIREMENTS

The Petition was submitted through the EIE system and the failure of all the representatives to sign the Petition was evidently due to a misunderstanding of the EIE system and the requirements of 10 C.F.R. § 2.304(d). Given the complexities of the EIE system, the fact that it is new, and that it was not intended to frustrate the ability of the public to participate in NRC proceedings, Petitioners will not be denied the opportunity to participate in this proceeding due to an error that can easily be corrected and that has caused no prejudice to any other participant.

FOREIGN OWNERSHIP: OWNERSHIP INTEREST THRESHOLD

The NRC has not established an ownership interest threshold or plateau above which a foreign entity is presumed to have control or domination over the applicant. Instead, the decision of whether or not to grant a license to a corporation

hinges on whether the applicant is being *controlled or dominated* by the foreign entity.

**FOREIGN OWNERSHIP: CONTROL AND DOMINATION;
SECURITY ISSUES**

The AEA restriction on foreign ownership focuses on safeguarding access to nuclear materials, a security issue, and not on other licensing matters.

**FOREIGN OWNERSHIP: CONTROL AND DOMINATION;
SECURITY ISSUES**

A domestic corporation in which a foreign entity has an ownership interest is considered “controlled or dominated” if their will is subjugated to the will of the foreign entity on primary safety matters or access policies that may be inimical to the national defense and security of the United States. However, a license will not be prohibited if the foreign entity’s influence is on other licensing activities not of primary concern to the NRC, or if the corporation follows NRC-implemented conditions to isolate safety matters from foreign control.

**FOREIGN OWNERSHIP: CONTROL AND DOMINATION;
ANALYSIS**

NRC case law and precedent do not prohibit considering the percentage of foreign ownership as one element in NRC’s overall analysis and finding of whether or not the foreign entity is a threat to the national defense and security of the United States.

DECOMMISSIONING FUNDING: CHOICE OF METHODS

It is beyond the authority of a licensing board to require applicant to choose a certain method of decommissioning funding. Moreover, there is no provision that requires an applicant or licensee to choose one form of decommissioning assurance over another. Licensees and applicants can demonstrate financial assurance by “one or more” of the funding mechanisms. An applicant is permitted to choose a single method or a combination of methods to demonstrate financial assurance.

DECOMMISSIONING FUNDING: TIMING OF FINANCIAL ASSURANCE

The contention states that Applicant cannot demonstrate that the decommissioning funding strategy is financially possible. Such demonstration is required at some point in the licensing process. However, both regulations and guidance documents fail to state when such proof is required.

NATIONAL ENVIRONMENTAL POLICY ACT: CUMULATIVE IMPACTS

It would be inconsistent with NEPA's rule of reason to require that the cumulative impacts analysis individually analyze the effects of remote facilities absent a demonstration that such additional effort would lead to a different conclusion.

NATIONAL ENVIRONMENTAL POLICY ACT: RULE OF REASON

NEPA analyses are subject to a "rule of reason," but to apply a rule of reason it is necessary to have a criterion upon which reasonableness may be determined. If the accident sought to be considered is sufficiently unlikely, such that it can be characterized fairly as remote and speculative, then consideration under NEPA is not required as a matter of law. The Commission has found that events having a less than a one in one million probability of occurring are not "credible events." Taken together, these individual statements lead to the conclusion that 10^{-6} is a reasonable threshold for considering events under NEPA.

RULES OF PRACTICE: CHOICE OF RULEMAKING OR ADJUDICATION

The Commission has announced proposals to revise its Waste Confidence Rule and its Waste Confidence Decision, and that it is accepting public comment on both proposals. Petitioners and others who believe the Waste Confidence Rule needs revision must use those proceedings to express their concerns.

RULES OF PRACTICE: CONTENTION ADMISSIBILITY; WASTE CONFIDENCE DECISION

Contentions concerning an Applicant's plan for disposal of Greater-Than-C radioactive waste cannot be admitted because the disposal of that type of waste is the responsibility of the federal government.

**RULES OF PRACTICE: CONTENTION ADMISSIBILITY;
IMPERMISSIBLE CHALLENGE TO NRC REGULATIONS**

A licensing board may not admit a contention that directly or indirectly challenges Table S-3 of 10 C.F.R. § 51.51.

**RULES OF PRACTICE: CONTENTION ADMISSIBILITY; ONSITE
STORAGE OF LOW-LEVEL WASTE**

The Board may admit an application-specific contention concerning the environmental consequences of the need for extended onsite storage of Low Level Radioactive Waste, assuming that contention satisfies the requirements of 10 C.F.R. § 2.309(f)(1).

**APPLICATION REQUIREMENTS: COMPLIANCE WITH NEPA
AND NRC REGULATIONS**

The Application assumes that offsite disposal facilities will be available to receive the full range of radioactive waste generated at the nuclear power plant. The Application does not explain how Applicant intends to manage Low Level Radioactive Waste in the absence of an offsite disposal facility. The omitted information is material to the ER's compliance with 10 C.F.R. § 51.45(b) and (e), and to the agency's compliance with NEPA.

**NATIONAL ENVIRONMENTAL POLICY ACT: MITIGATION
MEASURES**

NEPA requires that an EIS disclose measures that will mitigate potential adverse environmental impacts.

RULES OF PRACTICE: CONTENTIONS; TIMING

The Commission has made clear that petitioners must raise NEPA contentions in response to the ER, rather than await the agency's draft environmental impact statement.

MEMORANDUM AND ORDER
(Ruling on Joint Petitioners' Standing and Contentions)

I. INTRODUCTION

This case arises from an application by UniStar Nuclear Operating Services, LLC and Calvert Cliffs 3 Nuclear Project, LLC (Applicant) for a combined license (COL) for one U.S. Evolutionary Power Reactor (U.S. EPR) to be located at the Calvert Cliffs site in Lusby, Calvert County, Maryland. In response to a September 26, 2008 notice of opportunity for hearing in the *Federal Register*,¹ a petition to intervene and a request for hearing were timely filed on November 19, 2008, by Nuclear Information and Resource Service (NIRS), Beyond Nuclear, Public Citizen Energy Program (Public Citizen), and Southern Maryland Citizens' Alliance for Renewable Energy Solutions (SoMD CARES), collectively referred to hereinafter as "Joint Petitioners."

In this Memorandum and Order, we find that Joint Petitioners NIRS, Beyond Nuclear, Public Citizen, and SoMD CARES have standing to participate in this proceeding and we admit one of their contentions as pleaded, and two of their contentions as modified by the Board.

Based on these rulings, we grant the hearing requests of NIRS, Beyond Nuclear, Public Citizen, and SoMD CARES, and admit them as parties in this proceeding.

II. BACKGROUND

Under the Part 52 licensing process that governs the UniStar application for Calvert Cliffs Nuclear Power Plant, Unit 3 (CCNPP-3), an entity may apply for a single license that authorizes both new reactor construction and operation. Specifically, Subpart C of Part 52 establishes procedures for the issuance of a combined construction permit and conditional operating license for a nuclear power plant and the conduct of the hearing that is afforded for a COL. The COL is "essentially a construction permit which also requires consideration and resolution of many of the issues currently considered at the operating license

¹ See Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC Notice of Hearing and Opportunity to Petition for Leave to Intervene and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation on a Combined License for the Calvert Cliffs Nuclear Power Plant Unit 3, 73 Fed. Reg. 55,876 (Sept. 26, 2008).

stage.’’² The general requirements for the contents of a COL application are set forth in 10 C.F.R. §§ 52.79-52.80.

UniStar submitted an application for a combined license to the NRC in two parts on July 13, 2007, and March 14, 2008. NRC accepted and docketed the application on January 25, 2008, and June 3, 2008. The application was revised on August 20, 2008 (Rev. 3), and the “Notice of Hearing and Opportunity to Petition for Leave to Intervene” was published in the *Federal Register* on September 26, 2008.³ Joint Petitioners filed a “Petition to Intervene” on November 19, 2008.⁴ Applicant and NRC Staff timely filed answers to Joint Petitioners’ Petition to Intervene on December 15, 2008.⁵ Joint Petitioners timely filed their reply on December 22, 2008.⁶

The State of Maryland filed a motion to participate as an interested state in the Calvert Cliffs COL proceedings under 10 C.F.R. § 2.315(c) on November 21, 2008.⁷ This motion was unopposed by both NRC Staff and Applicant. The Board granted the State of Maryland’s motion on January 14, 2009.⁸

The NRC Staff was delayed in releasing Rev. 3 to the public due to standard security reviews of the application.⁹ Due to this delay, Joint Petitioners were not able to review Rev. 3 until January 27, 2009.¹⁰ The Board therefore notified the Commission pursuant to 10 C.F.R. § 2.309(i) that oral argument and a Board decision would be postponed in order to give Joint Petitioners time to review Rev. 3.¹¹ The Board held oral argument on February 20, 2009, in the ASLBP Hearing Room in Rockville, MD.

² Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors, 53 Fed. Reg. 32,060, 32,062 (Aug. 23, 1988).

³ See Fed. Reg. 55,876.

⁴ See Petition to Intervene in Docket No. 52-016, Calvert Cliffs 3 Nuclear Power Plant Combined Construction and License Application (Nov. 19, 2008) [hereinafter Pet.].

⁵ See NRC Staff’s Answer to Petition to Intervene in Docket No. 52-016, Calvert Cliffs 3 Nuclear Power Plant Combined Construction and License Application (Dec. 15, 2008) [hereinafter Staff Ans.]; Applicant’s Answer to Petition to Intervene (Dec. 15, 2008) [hereinafter App. Ans.].

⁶ See Joint Petitioners’ Reply to NRC Staff’s Answer to Petition to Intervene and Applicant’s Answer to Petition to Intervene (Dec. 22, 2008) [hereinafter Reply].

⁷ See State of Maryland Request to Participate (Nov. 21, 2008).

⁸ See Licensing Board Order (State of Maryland May Participate as an Interested State) (Jan. 14, 2009) (unpublished).

⁹ See Letter from Adam Gendleman, Counsel for NRC Staff, to Administrative Judges (Dec. 23, 2008) (ADAMS Accession No. ML083580215).

¹⁰ See Letter from James Biggins, Counsel for NRC Staff, to Administrative Judges (Jan. 27, 2009) (ADAMS Accession No. ML090270665).

¹¹ See Licensing Board Order (Notice Pursuant to 10 C.F.R. § 2.309(i)) (Feb. 5, 2009) (unpublished).

III. STANDING OF JOINT PETITIONERS TO PARTICIPATE IN THIS PROCEEDING

A. Legal Requirements

1. *Standing Under the Atomic Energy Act (AEA)*¹²

A petitioner's right to participate in a licensing proceeding stems from section 189a of the AEA. That section provides for a hearing "upon the request of any person whose interest may be affected by the proceeding."¹³ Under 10 C.F.R. § 2.309(d), the Commission's regulation implementing section 189a, a licensing board must determine whether the petitioner has an interest potentially 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)¹⁴ 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.¹⁵

When assessing whether a petitioner has set forth a sufficient interest to intervene, licensing boards generally use judicial concepts of standing.¹⁶ Those require the petitioner to show that (1) he or she has personally suffered or will personally suffer a distinct and palpable harm that constitutes injury in fact; (2) the injury can fairly be traced to the challenged action; and (3) the injury is likely to be redressed by a favorable decision.¹⁷ Additionally, the petitioner must meet the "prudential" standing requirement by showing that the asserted interest arguably falls within the zone of interests protected by the governing law.¹⁸

"For construction permit and operating license proceedings, the Commission generally has recognized a presumption in favor of standing for those persons who have frequent contacts with the area near a nuclear power plant."¹⁹ In particular,

¹² 42 U.S.C. § 2011 *et seq.* (1954).

¹³ 42 U.S.C. § 2239(a)(1)(A).

¹⁴ 42 U.S.C. § 4321 *et seq.* (1969).

¹⁵ 10 C.F.R. § 2.309(d)(1).

¹⁶ See *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 552 (2004).

¹⁷ See *Allen v. Wright*, 468 U.S. 737, 751 (1984).

¹⁸ See *Federal Election Commission v. Akins*, 524 U.S. 11, 20 (1998).

¹⁹ *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 95 (1993) (citing *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 56 (1979)); *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989) (stating that the presumption applies in proceedings for nuclear power plant "construction permits, operating licenses, or significant amendments thereto").

Commission case law has established a “proximity presumption,” whereby an individual may satisfy . . . standing requirements by demonstrating that his or her residence or activities are within the geographical area that might be affected by an accidental release of fission products, and in proceedings involving nuclear power plants this area has been defined as being within a 50-mile radius of such a plant.²⁰

In this case, Joint Petitioners are organizations rather than individuals. 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.²¹ Representational standing requires a demonstration that one or more of an organization’s members would have standing to intervene on their own, and that the identified members have authorized the organization to request a hearing on their behalf.²² In addition, the interests that the representative organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor the requested relief must require an individual member to participate in the organization’s legal action.²³

²⁰ *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Unit 1), LBP-07-11, 66 NRC 41, 52 (2007). *Accord Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 68 NRC 431, 438-39 (2008); *Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 303-04 (2008); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 149, *aff’d on other grounds*, CLI-01-17, 54 NRC 3 (2001). There are several exceptions to this standing rule. In an operating license amendment proceeding, a petitioner cannot base his or her standing simply upon a residence or visits near the plant, unless the proposed action quite obviously entails an increased potential for offsite consequences. Instead, it is incumbent upon the petitioner to provide some “plausible chain of causation,” some scenario suggesting how the license amendments would result in a distinct new harm or threat in order to establish standing. *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 191 (1999). Similarly, in a materials licensing case, proximity alone does not suffice to show standing; the petitioner must also satisfy the injury-in-fact component. *Nuclear Fuel Services, Inc.* (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004).

²¹ See *Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), LBP-07-14, 66 NRC 169, 183 (2007).

²² See *id.* *Accord Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994) (“An organization seeking representational standing on behalf of its members may meet the ‘injury-in-fact’ requirement by demonstrating that at least one of its members, who has authorized the organization to represent his or her interest, will be injured by the possible outcome of the proceeding.” *Id.* citing *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 389-400 (1979)).

²³ *Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409 (2007).

2. Joint Petitioners' Asserted Interests

a. Nuclear Information and Resource Service (NIRS)

NIRS states that it “is an information and networking center for people and organizations concerned about the safety, health and environmental risks posed by nuclear power generation.” Pet. at 1. It further states that “[b]ecause of its location in Takoma Park, Maryland, NIRS has a special interest in Maryland energy policy and economics, ratepayer protection, nuclear power, radioactive waste, renewable energy, energy efficiency and the risks posed by nuclear power plants operating in or proposed for Maryland.” *Id.* at 1-2. NIRS explains that it is representing the interests of its member Roma Mauro, who states in her declaration that she lives within 25 miles of the proposed reactor. She further recounts that she is “particularly concerned about the risk of accidental releases of radioactive material to the environment, and the potential harm to groundwater supplies and local surface waters.” Mauro Decl. ¶2.

In addition to representing Ms. Mauro, NIRS asserts that it “has standing in its own right to bring this petition, because its offices are located within about 50 miles of the site of the proposed nuclear power plant.” *Id.* According to NIRS, “[a]n accident at the proposed nuclear power plant could result in radiological releases and environmental contamination that would adversely affect the health of NIRS’ employees, the value of its property, and NIRS’ ability to conduct its business.” *Id.* NIRS has submitted the declaration of its staff member Michael Mariotte to support the allegations of potential injury to the organization. He states that he is the Executive Director of NIRS, that he resides within approximately 45 miles of the site of the proposed new reactor, and that he is concerned that “the construction and operation of the proposed nuclear power plant could adversely affect [his] health and safety and the integrity of the environment where [he] live[s].” Mariotte Decl. ¶2.

b. Beyond Nuclear

Beyond Nuclear explains that it is “a Maryland-based public education and advocacy group that aims to educate and activate the public on issues pertaining to the hazards of nuclear power, its connection to nuclear weapons and the need to abandon both.” Pet. at 2. Beyond Nuclear claims standing to represent the interests of its members alleged to be affected by the proposed new reactor. It has submitted declarations from its members Cynthia B. Peil and William Louis Peil, who live within 30 miles of the proposed site of CCNPP-3, and from Kevin Kamps, who states that his residence is “within the 50-mile emergency planning radius” for the proposed nuclear plant. Kamps Decl. ¶2. Beyond Nuclear also asserts standing in its own right “because its offices are located within about 50 miles of the site of the proposed nuclear power plant.” Pet. at 3.

c. *Public Citizen*

Public Citizen describes itself as a “non-profit, non-partisan consumer rights organization based in Washington, DC with over 100,000 members nationwide, including thousands of members in Maryland.” *Id.* One of its members, Bruce Boxwell, has filed a declaration stating that he lives within 7 miles of the proposed nuclear plant, that he is concerned about its potential impact upon his health and safety and the environment where he lives, and that he has authorized Public Citizen to represent him in licensing proceedings concerning CCNPP-3. Boxwell Decl. ¶ 1, 3. Public Citizen, like NIRS and Beyond Nuclear, states that its offices are located within “about fifty miles” of CCNPP-3, and it therefore claims standing to protect its own interests as well as those of its member, Mr. Boxwell.

d. *Southern Maryland Citizen’s Alliance for Renewable Energy Solutions (SoMD CARES)*

SoMD CARES “is a local citizen’s awareness group established to oppose the expansion of the Calvert Cliffs Nuclear Power Plant.”²⁴ Pet. at 4. It claims to have fifteen members, “all of whom live in proximity to the proposed reactor site.” *Id.* One such member, Steven W. Warner, has submitted a declaration stating that his residence is within 6 miles of the proposed site of CCNPP-3, that he is concerned about the proposed new reactor’s effects upon his health and safety and the environment in which he lives, and that he has authorized SoMD CARES to represent him in any licensing proceeding that concerns the safety and environmental impacts of the proposed nuclear power plant. Warner Decl. ¶ 2.

B. Licensing Board’s Ruling on Standing of Joint Petitioners

We conclude that Joint Petitioners have standing to represent their members who have filed declarations in this proceeding. All the Joint Petitioners have members that live within 50 miles of the proposed new reactor — in some instances much closer. The affiants are concerned about the proposed new reactor’s effects upon their health and safety and the environment in which they live. An alleged injury to health and safety, shared equally by many, can form the basis for standing.²⁵ Even minor radiological exposures resulting from a proposed

²⁴ Unlike the other Petitioners, SoMD CARES asserts standing solely in a representative capacity. It does not claim standing based on any injury to the organization itself.

²⁵ See *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1434 (1982).

license activity can be enough to create the requisite injury-in-fact.²⁶ Therefore, under the 50-mile presumption explained above, the affiants could have brought this action on their own behalf. They also state that they have authorized the Joint Petitioner organizations to represent their interests in any licensing proceeding that concerns the safety and environmental impacts of CCNPP-3. Joint Petitioners therefore have each shown that one or more of their members would have standing to intervene, and that the identified members have authorized the organizations to request a hearing on their behalf. The organizations have described their purposes, which are germane to the health, safety, and environmental interests asserted by their members. Finally, neither the asserted claims nor the requested relief requires an individual member to participate in this action. Joint Petitioners have therefore established the requisite representational standing. Accordingly, we need not examine the claims of three of the Joint Petitioners that they also have organizational standing.

As we explain below, we are persuaded by neither the Applicant's objections to Joint Petitioners' standing nor the NRC Staff's position that we should deny standing to all Joint Petitioners except NIRS.

1. Applicant's Objections to Joint Petitioners' Standing

Applicant contends that none of the Joint Petitioners has standing. It primarily argues that the Commission's 50-mile presumption of standing is outdated and should be abandoned. App. Ans. at 13-17. If we abandoned the presumption, Applicant contends, Joint Petitioners' standing declarations would be insufficient to pass the more demanding test it advocates. *Id.* at 17-22. Applicant also contends that "contentions must be limited to those that will afford relief from the injuries asserted as a basis for standing." *Id.* at 12.

a. The 50-Mile Presumption

The Commission has noted with approval that "[t]he rule of thumb generally applied in reactor licensing proceedings" includes "a presumption of standing for persons who reside or frequent the area within a 50-mile radius of the facility."²⁷

Applicant argues, however, that the Commission's "proximity presumption" is outdated when compared to contemporaneous judicial concepts of standing. These contemporaneous concepts, Applicant alleges, include a reworking of the

²⁶ See *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-91-17, 33 NRC 379, 391 (1991).

²⁷ *Sequoyah Fuels*, CLI-94-12, 40 NRC at 75 n.22. See also *North Anna*, ALAB-522, 9 NRC at 56; *Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-183, 7 AEC 222 (1974).

“injury-in-fact” concept in cases such as this, where future harm is the alleged injury. App. Ans. at 13-17. Applicant points to *Lujan v. Defenders of Wildlife*,²⁸ in which the Supreme Court set forth the three basic elements of constitutional standing:

[T]he irreducible constitutional minimum of standing contains three elements. The party claiming standing must be able to demonstrate that: (1) it has suffered an injury-in-fact, “an invasion of a legally protected interest which is (a) concrete and particularized . . . and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is “fairly traceable to the challenged action”; and (3) it must be “likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision.”²⁹

We do not dispute that *Lujan v. Defenders of Wildlife* sets forth the basic requirements for standing applied by federal courts. Unlike Applicant, however, we see no conflict between these basic requirements and the NRC’s 50-mile presumption of standing. The presumption does not permit persons with no actual or imminent claim of injury to obtain a hearing. On the contrary, the “common thread” in the decisions applying the 50-mile presumption “is a recognition of the potential effects at significant distances from the facility of the accidental release of fissionable materials.”³⁰ The NRC’s regulations also recognize that an accidental release has potential effects within a 50-mile radius of a reactor.³¹

²⁸ 504 U.S. 555 (1992).

²⁹ *Lujan*, 504 U.S. at 560-61 (internal quotations and citations omitted). See also *Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc.*, 528 U.S. 167, 180-81 (2000).

³⁰ *Babcock & Wilcox* (Apollo, Pennsylvania Fuel Fabrication Facility), LBP-93-4, 37 NRC 72, 83 (1993).

³¹ For example, under the emergency planning provisions of 10 C.F.R. § 50.33(g), “the plume exposure pathway [emergency planning zone] for nuclear power reactors shall consist of an area about 10 miles (16 km) in radius and the ingestion pathway [emergency planning zone] shall consist of an area about 50 miles (80 km) in radius.” Also, another NRC regulation implicitly recognizes that the liquid and gaseous waste systems at a nuclear power plant have the potential to affect populations at distances up to 50 miles from the plant. See 10 C.F.R. Part 50, Appendix I, § II.D. Applicant’s Environmental Report [ER] explains the requirements of this regulation with respect to the liquid waste system:

In addition to meeting the numerical As Low As Reasonably Achievable (ALARA) design objective dose values for effluents released from a light water reactor as stipulated in [10 C.F.R. Part 50, Appendix I], the regulation also requires that plant designs include all items of reasonably demonstrated cleanup technology that when added to the liquid waste processing system sequentially and in order of diminishing cost-benefit return, can, at a favorable cost-benefit ratio, effect reductions in dose to the population reasonably expected to be within 50 mi (80 km) of the reactor. Values of \$2,000 per person-rem and \$2,000 per person-thyroid-rem

(Continued)

The Commission, rather than disregarding contemporaneous judicial concepts of standing, has applied its expertise and concluded that persons living within a 50-mile radius of a proposed new reactor face a realistic threat of harm if a release of radioactive material were to occur from the facility. For this reason, the Commission does not require such persons to make individual showings of injury, causation, and redressability.³² The presumption does not grant standing to persons with merely theoretical or generalized grievances, but only to those persons who live sufficiently close to a proposed new reactor that they face an increased risk of harm if a release of radioactive material were to occur. The nontrivial increased risk constitutes injury-in-fact, is traceable to the challenged action (the NRC's licensing of a new nuclear reactor), and is likely to be redressed by a favorable decision that either denies a license or mandates compliance with legal requirements that protect the interests of the petitioners.³³

Applicant also argues that “[r]ecent D.C. Circuit decisions have added a quantitative aspect to standing determinations.” App. Ans. at 16. It notes that in *Florida Audubon Society v. Bentsen*,³⁴ the court stated that, when a petitioner claims an increased risk of future harm, that harm must be “substantially probable” to constitute an injury-in-fact for the purposes of standing.³⁵ Applicant also observes that in *Natural Resources Defense Council, Inc. v. Environmental Protection Agency* [hereinafter *NRDC I*], the court held that parties challenging an agency regulation had failed to demonstrate standing because the risk of injury was “miniscule.”³⁶ After rehearing petitions were filed, the court withdrew *NRDC I* and reconsidered the issue.³⁷ According to Applicant, the court held in *NRDC II* that a fatality rate resulting from the EPA rulemaking of 1 in 4.2 billion per person per year was “infinitesimal,” and that a 1 in 21 million chance of developing skin cancer from that same rulemaking was “similarly small,” but that a 1 in 200,000 lifetime risk of developing skin cancer was sufficient to constitute a substantially probable injury-in-fact.³⁸

Applicant concludes that the threshold to demonstrate future harm falls between

are used as a favorable cost benefit threshold based on NUREG-1530. Reassessment of NRC's Dollar-Per-Person REM Conversion Factor Policy, NUREG 1530, (Dec. 1995). ER § 3.5.2.3 (emphasis added). The ER contains an equivalent explanation concerning the gaseous waste system. ER § 3.5.3.3.

³² See *St. Lucie*, CLI-89-21, 30 NRC at 329; *Turkey Point*, LBP-01-6, 53 NRC at 150.

³³ Cf. *Lujan*, 504 U.S. at 560-61.

³⁴ 94 F.3d 658 (D.C. Cir. 1996).

³⁵ *Id.* at 666 (citing *Kurtz v. Baker*, 829 F.2d 1133, 1144 (D.C. Cir. 1987)).

³⁶ 440 F.3d 476, 481 (D.C. Cir. 2006).

³⁷ *Natural Resources Defense Council, Inc. v. U.S. Environmental Protection Agency*, 464 F.3d 1 (D.C. Cir. 2006) [hereinafter *NRDC II*].

³⁸ *NRDC II*, 464 F.3d at 8.

1 in 200,000 and 1 in 21 million. Applicant argues, relying upon the Design Control Document (DCD) for the U.S. EPR, that the probability of an accidental release of radioactive material from that reactor falls below this threshold. *See* App. Ans. at 18-19 (citing the core damage and the early release frequencies for the U.S. EPR reported in the DCD). Based on this, Applicant contends that application of the 50-mile presumption in this case would lead to a result inconsistent with contemporaneous judicial concepts of standing.

We do not accept this argument for several reasons. First, because we are bound by Commission and Appeal Board precedent, we are not at liberty to reject the 50-mile presumption. Applicant responds that the Commission has instructed licensing boards to apply contemporaneous judicial concepts of standing, that current judicial requirements for standing conflict with the presumption, and that therefore we are at liberty to disregard it. Hrg. Tr. at 16. In the absence of demonstrably compelling precedent, we doubt that the Commission intends for licensing boards to disregard its rulings based on their own interpretations of contemporaneous judicial concepts of standing. Otherwise, it is for the Commission, not licensing boards, to revise its rulings.

Moreover, even if we were at liberty to accept the Applicant's invitation, it fails to establish a new trend in the law that would justify abandoning the 50-mile presumption. The Applicant relies upon *NRDC II*, but that decision fails to demonstrate a new trend in the case law. On the contrary, the court in *NRDC II* expressly refused to decide whether the risk of harm sufficient to establish standing must exceed a quantitative threshold, or in the alternative whether any scientifically demonstrable increase in the threat of death or serious illness is sufficient.³⁹ The court observed that after *NRDC I* was decided a conflict in the federal judicial circuits had arisen over this question.⁴⁰ The court stated that “[o]n reconsideration, we have determined that the question is one we do not have to answer in this case.”⁴¹ The court observed that according to one expert “[t]he lifetime risk that an individual will develop nonfatal skin cancer as a result of EPA’s rule is about 1 in 200,000” and the risk is slightly higher according to another expert.⁴² The court then held that “[e]ven if a quantitative approach is appropriate — an issue on which we express no opinion — this risk is sufficient to support standing.”⁴³ Accordingly, *NRDC II*, far from supporting Applicant’s

³⁹ *Id.* at 6-7.

⁴⁰ *Id.* (comparing *Baur v. Veneman*, 352 F.3d 625, 634 (2d Cir. 2003); *Central Delta Water Agency v. United States*, 306 F.3d 938, 947-48 (9th Cir. 2002); *Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 160 (4th Cir. 2000) (en banc), with *Shain v. Veneman*, 376 F.3d 815, 818 (8th Cir. 2004); *Baur*, 352 F.3d at 651 & n.3 (Pooler, J., dissenting)).

⁴¹ *Id.* at 7.

⁴² *Id.*

⁴³ *Id.*

argument, shows that the federal courts of appeal have failed to reach a consensus on the question whether a risk of future injury must exceed a numerical threshold. The most that can be said based on *NRDC II* is that, *if* such a test for standing were to be adopted, a lifetime risk of 1 in 200,000 would be sufficient.

In addition, various contemporaneous standing decisions find the “injury-in-fact” requirement satisfied without the type of quantitative proof of harm Applicant contends is required.⁴⁴ In these cases, it was sufficient that persons living in or using an area near the defendant’s facility stated that they “feared” or were “concerned” they would be harmed by discharges from that facility, even though they did not attempt to quantify the risk of harm they might suffer. These contemporaneous standing decisions are consistent with the NRC’s presumption finding petitioners to have standing based on the proximity of their residences to a proposed new reactor and their concern that the new facility may endanger their health and safety and the environment in which they live.

Furthermore, Applicant’s argument fails to undermine the basis of the 50-mile presumption. As noted above, the presumption reflects the potential effect at significant distances from the facility of the accidental release of radioactive materials. Applicant here has provided no evidence to show that the effects of an accidental release from CCNPP-3 (much less nuclear reactors generally) would be limited to a shorter distance from the facility. The rationale for the 50-mile presumption does not depend upon the probability that a proposed reactor is likely to generate an accidental release of radioactive materials, but rather the fact that, if such an accident were to occur, it could realistically impact the geographic area within which the petitioners reside.⁴⁵

We also note that, although we can easily determine whether petitioners reside within 50 miles of the facility, it would be far more difficult for a licensing board to determine reliably the risk of an accidental release at this early stage of the proceeding. An applicant’s vendor will typically have prepared a probabilistic risk assessment for the reactor design. However, at this early stage “there is not yet available either the Final Environmental [Impact] Statement or the Safety Evaluation Report and, thus, neither we nor the petitioners have the benefit even

⁴⁴ See, e.g., *Laidlaw*, 528 U.S. at 182-84 (2000) (Injury-in-fact was adequately documented by the affidavits and testimony of members of the plaintiff organizations asserting that the defendant’s pollutant discharges, and the affiants’ reasonable concerns about the effects of those discharges, directly affected those affiants’ recreational, aesthetic, and economic interests; plaintiffs did not have to show that the discharges actually harmed the environment); *Covington v. Jefferson County*, 358 F.3d 626, 638-41 (9th Cir. 2004) (sufficient to allege that defendant’s actions “caused ‘reasonable concern’ of injury to” the plaintiff); *Sierra Club, Lone Star Chapter v. Cedar Point Oil Co., Inc.*, 73 F.3d 546, 556 (5th Cir. 1996) (affiants’ “concern” that discharges would impair water quality is sufficient).

⁴⁵ See *supra* note 20.

of the Staff's own ultimate appraisal respecting accident probabilities."⁴⁶ Thus, if we were to require proof of the likelihood of an accident at this stage in the proceeding, we could be forced to rely on the vendor's estimates, which should still be considered preliminary at this point. This would frustrate the public's opportunity to dispute and put to the test the applicant's claims concerning the safety of the proposed new reactor, which is the opportunity that AEA § 189a was intended to provide.

Although the Commission has encouraged licensing boards to apply contemporaneous concepts of standing, the ultimate test is not whether the NRC's test for standing conforms to that applied by federal courts, but whether the NRC's test represents a reasonable construction of section 189a.⁴⁷ Under Applicant's proposed new test, licensing boards would have to defer to the vendor's preliminary risk assessment except in the unusual instance in which the petition to intervene demonstrates that the risk of harm exceeds some (vaguely defined) numerical threshold. We doubt that placing such an onerous burden on petitioners would constitute a reasonable interpretation of the AEA. As long as the petitioners reside within an area that could realistically be impacted if an accidental release occurs, it is reasonable and consistent with section 189a to find that they have standing to challenge Applicant's safety claims and its environmental analysis under NEPA.⁴⁸

For these reasons, we cannot, and would not choose to, abandon the 50-mile proximity presumption. This makes it unnecessary for us to address Applicant's

⁴⁶ *River Bend*, ALAB-183, 7 AEC at 225-26 (citations and footnotes omitted).

⁴⁷ *Envirocare of Utah v. NRC*, 194 F.3d 72, 75-76 (D.C. Cir. 1999).

⁴⁸ Although it is not essential to our ruling, we note that Joint Petitioners have provided evidence to rebut Applicant's claim that the risk of an accidental release of radioactive material from CCNPP-3 falls below the minimum risk allegedly required under *NRDC II*. In particular, Joint Petitioners have provided the Declaration of Dr. Edward Lyman, a scientist who states that he has over 15 years of experience conducting research on security and environmental issues associated with the management of nuclear materials and the operation of nuclear power plants; that his research has included the safety and environmental risks posed by the next generation of reactors, including the U.S. EPR; and that he recently published an article on this subject in the *Bulletin of the Atomic Scientists*. Lyman Decl. ¶ 2. He notes that in *NRDC II* the Court found that a 1 in 200,000 *lifetime* risk of developing nonfatal skin cancer was sufficient to establish standing. *Id.* ¶ 5. He explains that such a *lifetime* risk corresponds to a 1 in 14 million *annual* risk for an average lifetime of 70 years, which he states is equivalent to an annual risk of 7.14×10^{-8} . *Id.* ¶ 6. Dr. Lyman observes that, in its Answer, Applicant provided an estimate of large release frequency for internal, at-power events of 2.6×10^{-8} per year. *Id.* Dr. Lyman states that the 7.14×10^{-8} annual risk of developing nonfatal skin cancer that was sufficient to support standing in *NRDC II* and the estimate of a 2.6×10^{-8} large release frequency for the U.S. EPR are "on the same order of magnitude." *Id.* ¶ 8. Therefore, Dr. Lyman concludes, "Petitioners should be given standing if the same quantitative standard is used as the standard used in [*NRDC II*]." *Id.* Dr. Lyman also contends that the actual risk from nuclear accidents is higher than Applicant estimates. He states that "UniStar bases its risk estimate only on internal, at-power events, and neglects external events such as seismic events, low-power events and shutdown events." *Id.* ¶ 9. If these external events were considered, he concludes, the large release frequency would increase to 4.3×10^{-8} . *Id.* ¶ 10.

argument that, if we abandoned the presumption, Joint Petitioners' standing declarations would be insufficient to pass the more demanding test Applicant advocates. App. Ans. at 17-22.

b. The Contentions Must Afford Relief from Injuries Asserted as a Basis for Standing

As Applicant notes (App. Ans. at 11), the Commission has ruled that, "once a party demonstrates that it has standing to intervene on its own accord, that party may then raise any contention that, if proved, will afford the party relief from the injury it relies upon for standing."⁴⁹ Joint Petitioners' affiants state that they will be injured by releases of radioactive material that may injure their health and welfare and harm the environment in the areas where they live. The contentions they raise will afford relief from the asserted injuries. For example, Joint Petitioners argue in Contention #1 that the COLA may not be granted because the license would violate AEA provisions that prohibit foreign ownership of licensed facilities. If Joint Petitioners are correct, then the license to construct and operate CCNPP-3 must be denied, and the affiants' asserted injuries will have been prevented. Similarly, ensuring adequate decommissioning funding, the object of Contention #2, may reduce the risk of an inadvertent release of radioactive material during decommissioning. Favorable rulings on the NEPA contentions will ensure that procedures are observed that require adequate analysis of Joint Petitioners' environmental concerns. In short, Joint Petitioners' contentions, if proved, will afford relief from the injuries they have relied upon for standing.

2. NRC Staff's Objections to the Standing of Joint Petitioners Other Than NIRS

NRC Staff concedes that NIRS has standing. Staff Ans. at 15. In addition, it agrees that the Commission has "noted . . . with approval" the 50-mile presumption of standing applied by licensing boards. Staff Ans. at 7. NRC Staff recognizes that we are required by Commission rulings to apply the 50-mile presumption of standing, and at oral argument the Staff declined to join in Applicant's argument that we should abandon the presumption based on alleged contemporaneous judicial concepts of standing. Hrg. Tr. at 21.

NRC Staff argues, however, that Public Citizen lacks standing because its stated organizational interest in "energy policies that best protect consumers" is not germane to the health, safety, and environmental concerns set forth in the Declaration of its member, Bruce Boxwell. Staff Ans. at 18-19. In reality, it

⁴⁹ *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996).

would be hard to think of an energy policy that better protects consumers than one that protects their health and safety and the environment in which they live, and those are the interests asserted by Mr. Boxwell. We therefore find no merit in the Staff's objection to the standing of Public Citizen.

The remainder of NRC Staff's objections to the participation of Joint Petitioners other than NIRS, while presented as standing arguments, are in fact based on technical defects in the Petition and the supporting declarations. NRC Staff states that Beyond Nuclear would have standing if it had properly joined in the Petition, but it claims that Beyond Nuclear did not do so because the Petition was signed only by the representative of NIRS. We have no difficulty concluding from the text of the Petition, however, that Beyond Nuclear intended to join in the Petition. The first page of the Petition states that Beyond Nuclear and the other Joint Petitioners "hereby petition to intervene" in this COL proceeding, the basis of Beyond Nuclear's standing is described in the immediately following "Description of Petitioners," and the Petition was accompanied by three declarations to demonstrate Beyond Nuclear's standing. It is true that Beyond Nuclear's representative did not sign the Petition. However, the Petition was submitted through the EIE system, as required, and the failure of all the representatives to sign the Petition was evidently due to a misunderstanding of the EIE system and the requirements of 10 C.F.R. § 2.304(d). Given the complexities of the EIE system, the fact that it is new, and that it was not intended to frustrate the ability of the public to participate in NRC proceedings, we will not deny Beyond Nuclear or any of the other Joint Petitioners the opportunity to participate in this proceeding due to an error that can easily be corrected and that has caused no prejudice to any other participant. To that end, we have required that the Petition be resubmitted with the signatures of all Joint Petitioners, in the manner required by section 2.304(d). NRC Staff concedes we may allow the Petition to be refiled to correct such procedural errors. Staff Ans. at 13 n.7. Joint Petitioners have filed the corrected Petition, and the signature issue therefore need not concern us further.

As to SoMD CARES, NRC Staff states that no declaration was submitted in which a person with standing authorized that organization to represent his or her interest in this proceeding. Staff Ans. at 19-20. However, the Declaration of Steven W. Warner did just that. The title of the initial declaration signed by Mr. Warner referred to NIRS rather than SoMD CARES, but the body of the declaration made clear that Mr. Warner is a member of SoMD CARES and that he authorized that organization, not NIRS, to represent him in this licensing proceeding. Moreover, the Board was provided with an amended declaration signed by Mr. Warner that corrected the error in the title. We will not deny a participant standing because of a minor technical error in the title of a document that resulted in no prejudice to any participant and that was promptly corrected.

IV. STANDARDS FOR ADMISSIBILITY OF CONTENTIONS

In order to participate as a party in this proceeding, a petitioner for intervention must not only establish standing, but must also proffer at least one admissible contention that meets the requirements of 10 C.F.R. § 2.309(f)(1).⁵⁰ An admissible contention must: (i) provide a specific statement of the legal or factual issue sought to be raised; (ii) provide a brief explanation of the basis for the contention; (iii) demonstrate that the issue raised is within the scope of the proceeding; (iv) demonstrate that the issue raised 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, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at the hearing; and (vi) provide sufficient information to show that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or, in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief.⁵¹

The purpose of section 2.309(f)(1) is to "focus litigation on concrete issues and result in a clearer and more focused record for decision."⁵² The Commission has stated that it "should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing."⁵³ The Commission has emphasized that the rules on contention admissibility are "strict by design."⁵⁴ Further, contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications. Failure to comply with any of these requirements is grounds for not admitting a contention.

Several of the contentions we address below are contentions of omission. Section 2.309(f)(1)(vi) provides that, "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" must be provided. Identification of information missing from an application is called a contention of omission. A contention of omission claims that "the application fails to contain information on a relevant matter as required by law . . . and

⁵⁰ See 10 C.F.R. § 2.309(a), (f)(1).

⁵¹ 10 C.F.R. § 2.309(f)(1).

⁵² Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

⁵³ *Id.*

⁵⁴ See, e.g., *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 213 (2003); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358-59 (2001); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334-35 (1999).

[provides] the supporting reasons for the petitioner's belief.''⁵⁵ To satisfy section 2.309(f)(1)(i)-(ii), the contention of omission must describe the information that should have been included in the ER and provide the legal basis that requires the omitted information to be included. The petitioner must also demonstrate that the contention is within the scope of the proceeding.

Section 2.309(f)(1)(v) requires the petitioner to provide a concise statement of the facts that support its position and upon which the petitioner intends to rely at the hearing. However, "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."⁵⁶ Thus, for a contention of omission, the petitioner's burden is only to show the facts necessary to establish that the application omits information that should have been included. The facts relied on need not show that the facility cannot be safely operated, but rather that the application is incomplete. If an applicant cures the omission, the contention will become moot.⁵⁷

Finally, if the contention alleges that the application omits information *required by law*, "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) [and] . . . raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance"⁵⁸ in accordance with section 2.309(f)(1)(iv).

V. BOARD ANALYSIS AND RULING ON JOINT PETITIONERS' CONTENTIONS

A. Contention #1

Joint Petitioners state in Contention #1:

Contrary to the Atomic Energy Act and NRC Regulations, Calvert Cliffs-3 would be owned, dominated and controlled by foreign interests.

Pet at 5. Joint Petitioners argue that CCNPP-3 would be owned, controlled, and dominated by a foreign corporation and a foreign government in violation of

⁵⁵ 10 C.F.R. § 2.309(f)(1)(vi).

⁵⁶ *North Anna*, LBP-08-15, 68 NRC at 317 (quoting *Pa'ina Hawaii, LLC*, LBP-06-12, 63 NRC 403, 414 (2006)).

⁵⁷ *North Anna*, LBP-08-15, 68 NRC at 317; *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).

⁵⁸ *Pa'ina*, LBP-06-12, 63 NRC at 414.

section 103(d) of the AEA and NRC regulations.⁵⁹ According to Joint Petitioners, CCNPP-3 will be operated by Calvert Cliffs-3 Nuclear Project, LLC, which is a wholly owned subsidiary of UniStar Nuclear Operating Services, LLC (Applicant). Pet. at 6. Applicant is 50% owned by Constellation Energy Group, Inc. (Constellation), a U.S. company, and 50% owned by Électricité de France (EdF), a French company which is 84.85% owned by the French government. Pet. at 6. Joint Petitioners state that EdF is also the second largest shareholder in Constellation, owning 9.5% of the company's stocks.⁶⁰ They attest that EdF owns more than 50% of Applicant, thereby exceeding a "threshold" percentage of ownership beyond which domination and control of CCNPP-3 is assumed. Pet. at 7. This ownership interest, along with the large amount of money EdF has invested in Applicant, leads Joint Petitioners to the conclusion that EdF will be "the dominant and controlling partner in this relationship." Pet. at 8.

Applicant does not dispute the alleged ownership interest EdF has in Calvert Cliffs-3 Nuclear Project, LLC. App. Ans. at 23. Applicant argues that, because a 50% ownership interest "threshold" does not establish control and domination as a matter of law, Joint Petitioners have not established a genuine dispute with the application. App. Ans. at 24. Furthermore, Applicant asserts that adequate safeguards are in place to ensure that EdF does not dominate or control Applicant and thereby run afoul of the AEA and NRC regulations.⁶¹ NRC Staff argues that Joint Petitioners' Contention #1 does not meet the requirements of 10 C.F.R. § 2.309(f)(1)(v) because the contention is supported by neither expert opinion nor appropriate references. Staff Ans. at 21. NRC Staff claim that Joint Petitioners provide no expert support to substantiate their method of adding the EdF shares together to determine whether or not the prohibition on foreign ownership in the AEA is violated by the application. Staff Ans. at 20-22.

On December 23, 2008, Applicant filed a letter with the Board detailing a new agreement between EdF and Constellation Energy Nuclear Group, LLC, whereby EdF will be acquiring a 49.99% interest in Constellation Energy Nuclear Group, LLC.⁶² At oral argument, Applicant stated that this transaction will have no effect

⁵⁹ 10 C.F.R. § 70.40. *See also* Pet. at 6.

⁶⁰ *See* Attachment A.

⁶¹ App. Ans. at 23-24. Such safeguards include an investor agreement that requires EdF to vote its shares in accordance with the recommendations of the Constellation Board of Directors. UniStar Nuclear Energy, common parent of UniStar Nuclear Operating Services, LLC and Calvert Cliffs-3 Nuclear Project, LLC, has a Board of Directors that will consist of four Constellation members and four EdF members. The Chairman of UniStar Nuclear Energy (from Constellation and a U.S. citizen) will have the deciding vote on sensitive nuclear matters. The President and CEO of UniStar Nuclear Energy will also each be a U.S. citizen. *Id.* at 26-27.

⁶² *See* Letter from David A. Repka, Counsel for Calvert Cliffs-3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC to Administrative Judges (Dec. 23, 2008). *Note:* Constellation Energy Nuclear Group, LLC is a subsidiary of Constellation Energy Group, Inc.

on the corporate structure of Calvert Cliffs-3 Nuclear Project, LLC. Hrg. Tr. at 43. If the investment agreement affects CCNPP-3 in any way, Applicant assured the Board that they will revise the COL. *Id.*

Discussion

We find Contention #1 *admissible* because Joint Petitioners have raised a genuine dispute with the Application on a material issue of fact.

Sections 103(d) and 104(d) of the AEA and section 50.38 of NRC regulations⁶³ prohibit the NRC from issuing a reactor license to “any corporation[] or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.”⁶⁴ The plain language of sections 103(d) and 50.38 indicate that corporations wholly owned by foreign entities are *per se* prohibited from obtaining a license from the NRC.⁶⁵ But when the foreign entity holds only an ownership interest in the corporation, as is the case here, the NRC is permitted to issue a license under certain circumstances.

Contrary to Joint Petitioners’ assertion, the NRC has not established an ownership interest threshold or plateau above which a foreign entity is presumed to have control or domination over the applicant.⁶⁶ In fact, the legislative history of section 103(d) reveals that the drafters of the AEA actually deleted a proposed clause that would have placed a 5% foreign ownership cap on applicants.⁶⁷ Instead, the decision of whether or not to grant a license to a corporation hinges on whether the applicant is *controlled or dominated* by the foreign entity.⁶⁸

The Atomic Energy Commission (AEC), predecessor to the NRC, first defined the terms “owned, controlled, or dominated” in *General Electric Co.*⁶⁹ The AEC

⁶³ Section 50.38 combines the language of sections 103(d) and 104(d): “Any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license.” This section was enacted in 1956 and was not changed in the 2004 regulation revisions.

⁶⁴ 10 C.F.R. § 50.38. *See also* 42 U.S.C. § 2143(d).

⁶⁵ Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. 52,355, 52,358 (Sept. 28, 1999) [hereinafter SRP]. An exception to this prohibition allows a foreign corporation whose “stock is ‘largely’ owned by U.S. citizens” to be eligible for a license.

⁶⁶ *Id.* at 52,359.

⁶⁷ Atomic Energy Act of 1954; Pub. L. No. 83-703, S. Rep. No. 83-1699, at 3477 (1954).

⁶⁸ Under general principles of corporate law, a publicly held corporation is usually controlled by management (the Board of Directors and the Chief Executive Officer) and/or majority shareholders. “Control” is defined as management of the business. *See* Robert W. Hamilton & Richard A. Booth, *Corporations* 720 (5th ed. 2006).

⁶⁹ 3 AEC 99 (1966).

held that “the words ‘owned, controlled, or dominated’ refer to relationships where the will of one party is subjugated to the will of another, and that the Congressional intent was to prohibit such relationships where an alien has the power to direct the actions of the licensee.”⁷⁰ The AEC narrowed the limitation to be oriented “toward [safeguarding] the national defense and security” of the United States.⁷¹ The D.C. Circuit provided some guidance as to what the term “common defense and security” encompassed.⁷² The court held that the focus of safeguarding should be “such things as not allowing the new industrial needs for nuclear materials to preempt the requirements of the military; of keeping such materials in private hands [to] secure against loss or diversion; and of denying such materials and classified information to persons whose loyalties were not to the United States.”⁷³ Thus, the court read the AEA restriction as being focused on safeguarding access to nuclear materials, a security issue, and not on other licensing matters.

More recently, the NRC approved a transfer of ownership application that proposed to transfer ownership of a nuclear plant to AmerGen, whose parent companies were foreign entities.⁷⁴ The NRC determined that it was not inimical to the national defense and security to grant this transfer to AmerGen, because the foreign entities were influencing matters that were primarily economic.⁷⁵ The NRC approved the transfer by imposing conditions to safeguard safety issues from foreign influence.⁷⁶

Thus, according to precedent and past NRC actions, a domestic corporation in which a foreign entity has an ownership interest is considered “controlled or dominated” if their will is subjugated to the will of the foreign entity on primary safety matters or access policies that may be inimical to the national defense and security of the United States. However, a license will not be prohibited if the foreign entity’s influence is on other licensing activities not of primary concern to the NRC, or if the corporation follows NRC-implemented conditions to isolate safety matters from foreign control.

The initial determination of whether or not a corporation or entity is controlled or dominated by a foreign entity is made at the application phase by NRC Staff. The Commission issued a Final Standard Review Plan (SRP) in 1999 that delineates review procedures and criteria NRC Staff follows and considers when

⁷⁰ *Id.* at 101.

⁷¹ *Id.*

⁷² See *Siegel v. AEC*, 400 F.2d 778, 784 (D.C. Cir. 1968).

⁷³ *Id.* at 784.

⁷⁴ *GPU Nuclear, Inc., et al.* (Three Mile Island, Unit 1), Apr. 12, 1999.

⁷⁵ See *id.* See also Martin G. Malsch, *The Purchase of U.S. Nuclear Power Plants by Foreign Entities*, 20 Energy L.J. 263, 275-277 (1999).

⁷⁶ See *GPU Nuclear, Inc., et al.* (Three Mile Island, Unit 1), April 12, 1999.

making this determination.⁷⁷ If NRC Staff has reason to believe that an applicant may be owned, controlled, or dominated by foreign interests, the NRC Staff can request stock information and the disclosure of management positions held by non-U.S. citizens from an applicant, and can assess the ability of foreign entities to control the appointment of management positions.⁷⁸ NRC Staff must then determine the nature and extent of foreign ownership, control, or domination; the source of foreign ownership, control, or domination; and the type of actions that would be necessary to negate the consequences of foreign ownership, control, or domination “to a level consistent with the Atomic Energy Act and NRC regulations.”⁷⁹

Upon a conclusion that an applicant is foreign owned, controlled, or dominated, NRC Staff requires an applicant to submit a negation action plan, which “provide[s] positive measures that assure that the foreign interest can be effectively denied control or domination.”⁸⁰ Such measures include modification of contracts and agreements with foreign interests, diversification or reduction of foreign source income, demonstration of financial viability independent of foreign interests, elimination of problem debt, assignment of specific oversight duties to board members, and adoption of special board resolutions.⁸¹

The Board rules that Contention #1 is admissible. The Board finds that Joint Petitioners’ Contention #1 meets the requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi). Joint Petitioners have raised a specific statement of law or fact and have provided a brief explanation of the basis for their contention.⁸² The contention is within the scope of the proceeding because it challenges the legality of issuing the combined operating license that is the subject of this proceeding.⁸³ The issue of foreign ownership raised by Joint Petitioners is material to the findings NRC Staff must make to support the issuance of the combined operating license; whether NRC Staff can issue the license to Applicant is contingent upon their determination that CCNPP-3 will not be owned, controlled, or dominated by a foreign entity, as required by the AEA and NRC regulations.⁸⁴

Contrary to NRC Staff’s arguments, Joint Petitioners have indeed satisfied the requirements of section 2.309(f)(1)(v). NRC Staff claims that Joint Petitioners’ Contention #1 is not supported by expert opinions or appropriate references. Staff Resp. at 21. Under section 2.309(f)(1)(v), the requirement “generally is fulfilled

⁷⁷ It should be noted that NRC Staff is not bound by the procedures set forth in the SRP.

⁷⁸ See 64 Fed. Reg. at 52,358.

⁷⁹ *Id.* at 52,359.

⁸⁰ *Id.*

⁸¹ See *id.*

⁸² 10 C.F.R. § 2.309(f)(1)(i)-(ii).

⁸³ 10 C.F.R. § 2.309(f)(1)(iii).

⁸⁴ 10 C.F.R. § 2.309(f)(1)(iv).

when the sponsor of an otherwise acceptable contention provides a brief recitation of the factors underlying the contention or references to documents and text that provide such reasons.’’⁸⁵ Here, Joint Petitioners have both recited facts to support their contention and have provided documentation to support their assertion that Applicant is at least 50% owned by EdF, a foreign corporation.⁸⁶

Finally, contrary to Applicant’s argument, Joint Petitioners have satisfied the requirements of section 2.309(f)(1)(vi). Under section 2.309(f)(1)(vi), a properly formulated contention must focus on the license application in question, and challenge specific portions of, or alleged omissions from, the application, and thereby establish that a genuine dispute exists with the applicant on a material issue of law or fact.⁸⁷

Joint Petitioners have established a genuine dispute with the Application. Though Applicant is correct in its assertion that there is no threshold above which a foreign entity is assumed to control and dominate a corporation, this policy only establishes that a foreign entity cannot be denied a license based on percentage of ownership *per se*.⁸⁸ NRC case law and precedent do not prohibit considering the percentage of foreign ownership as one element in NRC’s overall analysis and finding of whether or not the foreign entity is a threat to the national defense and security of the United States. Joint Petitioners’ assertion that EdF’s large ownership interest indicates control and domination of Applicant is undeniably a dispute with Applicant’s argument that safeguards delineated in the Application negate control and domination. This issue raises a dispute of material fact with the Application. To what extent EdF actually exercises control and domination over Applicant, and whether adequate safeguards are indeed in place to negate this influence, goes to the merits of the case and is not appropriate to decide at the contention admissibility stage.⁸⁹ Furthermore, the facts indicate that EdF may

⁸⁵ *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 356 (2006) (quoting Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989)).

⁸⁶ See Pet., Exh. 8, Constellation Energy Form 10-K, Fiscal Year Ending December 31, 2007 (Nov. 19, 2008); Pet., Exh. 9, Portion of Électricité de France 2007 Annual Report Showing Amount of French Government Ownership (Nov. 19, 2008); Pet., Exh. 10, Portion of Électricité de France 2007 Annual Report Showing Amount of 2007 Revenue (Nov. 19, 2008); Pet., Exh. 11, Form SC 13D, Filed with the Securities & Exchange Commission September 8, 2008, Showing Électricité de France Ownership Stake in Constellation Energy (Nov. 19, 2008); Pet., Exh. 12, Chart Showing Breakdown of Constellation Energy Generating Output (Nov. 19, 2008).

⁸⁷ See *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-07-3, 65 NRC 237, 254 (2007).

⁸⁸ See 64 Fed. Reg. at 52,358.

⁸⁹ The Commission has held that a petitioner need not prove its case at the contention admissibility stage of the proceeding. See *Vermont Yankee*, LBP-04-28, 60 NRC at 555; *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004).

acquire a larger ownership interest in Constellation in the near future. This leads the Board to the conclusion that the ultimate outcome of this issue is unclear.

Joint Petitioners have satisfied all the requirements of section 2.309(f)(1). Contention #1 is *admitted*.

B. Contention #2

Joint Petitioners state in their Contention #2:

The Decommissioning Funding Assurance described in the Application is inadequate to assure sufficient funds will be available to fully decontaminate and decommission Calvert Cliffs-3. Applicants must use the prepayment method of assuring decommissioning funding.

Pet. at 8. Joint Petitioners argue that Applicant's method of funding the decommissioning of CCNPP-3 is inadequate to cover the anticipated \$378 million cost of decommissioning all their nuclear assets.⁹⁰ Pet. at 10. Applicant is utilizing a parent-company guarantee from Constellation to ensure that funding will be available at the time of decommissioning.⁹¹ Pet. at 9. According to Joint Petitioners, Constellation's responsibility for five other reactors will lead to high decommissioning liabilities that, due to Constellation's loss of share value, Constellation may not be able to cover.⁹² Pet. at 10. Applicant's other two options for decommissioning funding include a sinking fund⁹³ and prepayment of the entire decommissioning amount.⁹⁴ According to Joint Petitioners, because CCNPP-3 is

⁹⁰ This estimate is measured in 2006 dollars. Joint Petitioners also note that \$378 million may be an underestimation of the cost of decommissioning CCNPP-3. *See* Pet. at 11.

⁹¹ According to 10 C.F.R. § 50.75(e)(1)(iii)(B), "[a] parent company guarantee of funds for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in appendix A to 10 CFR part 30."

⁹² Appendix A to Part 30 allows an applicant to provide reasonable assurance of the availability of decommissioning funds from a parent guarantee by demonstrating that the parent company passes a financial test set forth in that section. Applicant asserts that Constellation, who would be providing the parent guarantee, passes this financial test. *See* App. Ans. at 30.

⁹³ *See* 10 C.F.R. § 50.75(e)(1)(ii). An external sinking fund is "a fund established and maintained by setting funds aside periodically in an account segregated from licensee assets and outside the administrative control of the licensee and its subsidiaries or affiliates in which the total amount of funds would be sufficient to pay decommissioning costs at the time permanent termination of operations is expected." *Id.*

⁹⁴ *See* 10 C.F.R. § 50.75(e)(1)(i). "Prepayment is the deposit made preceding the start of operation . . . into an account segregated from licensee assets and outside the administrative control of the licensee and its subsidiaries and affiliates of cash or liquid assets such that the amount of funds would be sufficient to pay decommissioning costs at the time permanent termination of operations is expected." *Id.*

not guaranteed any electricity sales, an external sinking fund is inadequate to cover decommissioning costs. Joint Petitioners assert that prepayment of the full amount of decommissioning costs must be provided. Pet. at 11.

Applicant argues that it intends to use a combination of the parent guarantee, sinking fund, and letters of credit to cover decommissioning costs.⁹⁵ App. Ans. 28-29. It also asserts that, contrary to Joint Petitioners' position, "neither market capitalization nor share price are variables to be used in the financial test" set forth in Appendix A to 10 C.F.R. Part 30. App. Ans. at 30. Moreover, Contention #2 is an impermissible attack on NRC regulations because there is no requirement that the parent guarantee be satisfied at this time under section 52.103(a).⁹⁶ Additionally, because Joint Petitioners do not challenge Applicant's use of the formula provided by NRC regulations, they must be challenging the formula itself, which is an impermissible attack on NRC regulations.⁹⁷ App. Ans. at 33.

NRC Staff argues that Joint Petitioners' Contention #2 is not material to the findings NRC must make to support this action⁹⁸ because section 50.33(k) provides that a COL application is required to have a decommissioning report, but certification of financial assurance is not required until 30 days after the Commission publishes notice pursuant to section 52.103(a).⁹⁹ Furthermore, NRC Staff contends that Joint Petitioners fail to establish a genuine dispute with the application¹⁰⁰ because they do not "explain how the information provided in the application does not meet the requirements of 10 C.F.R. §§ 50.75(b) or 50.33(k)." Staff Ans. at 23.

Discussion

The Board admits Contention #2 in part. We believe that it is beyond our authority to require Applicant to choose a certain method of decommissioning funding, and therefore do not admit that part of the contention. However, we find that this contention has raised a legitimate issue of law regarding the proper timing

⁹⁵ Applicant also argues that this is new information that appears in Rev. 3, and that Joint Petitioners therefore have not raised a material issue regarding the Application. See App. Ans. at 28-29.

⁹⁶ Applicant claims that, at present, UniStar is only required to "file a 'decommissioning' report that contains a certification that financial assurance for decommissioning *will be* provided no later than 30 days after the Commission publishes notice of initial fuel loading in the *Federal Register* under § 52.103(a)." App. Ans. at 31 (emphasis in original).

⁹⁷ See also 10 C.F.R. § 2.335.

⁹⁸ See 10 C.F.R. § 2.309(f)(1)(iv).

⁹⁹ See Staff Ans. at 22.

¹⁰⁰ See 10 C.F.R. § 2.309(f)(1)(v).

for the Applicant to submit the financial tests for parent company guarantees. We therefore admit this part of the contention.

The Commission's decommissioning funding regulations are intended to "minimize the administrative effort . . . and provid[e] reasonable assurance that funds will be available to carry out decommissioning in a manner [that] protects public health and safety."¹⁰¹ Decommissioning funding assurance for nuclear power plants is governed by 10 C.F.R. §§ 50.33(k), 50.75, 50.82 and constitutes a multiple-step process. For a license under 10 C.F.R. Part 50, first the applicant must submit with its application a decommissioning report and certification that provides assurances that decommissioning funds are available to decommission the facility.¹⁰² The amount of decommissioning funds that must be available is calculated by the applicant, using the table found in section 50.75(c)(1).¹⁰³ Second, licensees are required to annually adjust the amount of decommissioning funding assurance,¹⁰⁴ and report on the status of said funding.¹⁰⁵ Third, 5 years before permanent cessation of operations, licensees must file a preliminary decommissioning cost estimate that includes plans for adjusting levels of funds as needed.¹⁰⁶ By the time the Post-Shutdown Decommissioning Activities Report is filed,¹⁰⁷ licensees should either have (1) funds plus an estimate of expected earnings on a fund, or (2) a guarantee, insurance, or other funding assurance method for the total estimated cost, as provided in 10 C.F.R. § 50.75(e).¹⁰⁸

In 2007, the Commission revised section 50.75(b)(4) as it applies to COLs under Part 52 because the requirements in place (decommissioning report *and* certification of financial assurance at the application phase) were too stringent.¹⁰⁹ Under the revised rule, the COL applicant must submit a decommissioning report

¹⁰¹ *Consolidated Energy Co. of New York* (Indian Point, Units 1 and 2), CLI-01-19, 54 NRC 109, 143 (2001) (citing General Requirements for Decommissioning Nuclear Facilities, 53 Fed. Reg. 24,018, 24,030 (June 27, 1988)).

¹⁰² 10 C.F.R. § 50.33(k)(1).

¹⁰³ This is considered to be the "cost estimate."

¹⁰⁴ 10 C.F.R. § 50.75(c)(2). *See also* NUREG-1577, "NRC Staff, Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance," at 10 (Rev. 1 Feb. 1999) [hereinafter NUREG-1577].

¹⁰⁵ 10 C.F.R. § 50.75(f).

¹⁰⁶ *Id.*

¹⁰⁷ In accordance with 10 C.F.R. § 50.82.

¹⁰⁸ *See* NUREG-1577 at 6.

¹⁰⁹ *See* Licenses, Certifications, and Approvals for Nuclear Power Plants, 72 Fed. Reg. 49,352, 49,406 (Aug. 28, 2007) "[R]equiring the combined license applicant to comply with the current requirement in § 50.75(b)(4) that the operating license applicant submit a copy of the financial instrument obtained to satisfy the requirements of § 50.75(e), would place a more stringent requirement on the combined license applicant, inasmuch as that applicant would be required to fund decommissioning assurance at an earlier date as compared with the operating license applicant."

that contains a certification that the funding assurance *will be* provided no later than 30 days after the NRC publishes notice in the *Federal Register* of its scheduled date for initial fuel loading.¹¹⁰ In other words, a COL applicant need not submit a certification of existing financial assurance to fund decommissioning to the NRC with its application, as is required of non-COL applicants.¹¹¹

Moreover, there is no provision that requires an applicant or licensee to choose one form of decommissioning assurance over another. Licensees and applicants can demonstrate financial assurance by “one or more” of the funding mechanisms.¹¹² An applicant is permitted to choose a single method or a combination of methods to demonstrate financial assurance, as Applicant has done here.

Clearly it is beyond the authority of this Board to specify how Applicant must fulfill the decommissioning funding requirement. The Board can only decide whether or not the current funding proposal fulfills NRC requirements. Hence, the second statement of this contention, which states that the Applicant must use the prepayment option, *will not be admitted*. The first sentence of the contention states that the current plan for decommissioning funding is inadequate. Pet. at 8. In other words, Joint Petitioners contend that it is not adequately demonstrated in the Application that the decommissioning funding strategy is financially possible.

Funding assurance for decommissioning costs consists of four components. First, it must contain an estimate of decommissioning costs so that the amount of assurance that is required is known. NRC regulations specify that this cost estimate must be contained in the decommissioning report that is part of the COLA.¹¹³ Second, 10 C.F.R. § 50.75(b)(3) requires that the decommissioning report specify the method by which assurance will be provided. The third requirement is the assurance itself, which is finalized in the form of completed and signed financial documents. As noted *supra*, these signed documents are not required until 30 days after the notification in the *Federal Register* that the licensee has set a date to load fuel.¹¹⁴ The fourth and final component of the financial assurance, required for only some of the funding methods, is a financial test showing that the method

¹¹⁰ 10 C.F.R. § 52.103(a); *see also* 10 C.F.R. § 50.75(b)(1).

¹¹¹ “The final rule requires that no later than 30 days after the Commission publishes notice in the Federal Register under § 52.103(a), the combined license holder must submit a report to the NRC. The report must contain a certification that financial assurance is being provided in an amount specified in the licensee’s most recent updated certification (i.e., the certification provided 1 year before the scheduled date for initial loading of fuel, in accordance with the first sentence of § 50.75(e)(3)). The certification must include a copy of the financial instrument obtained to provide decommissioning funding assurance. The requirements in paragraph (f)(1) of § 52.103(a), which are applicable to the combined license holder after the Commission has made the finding under § 52.103, are adopted in the final rule without change from the proposed rule.” 72 Fed. Reg. at 49,406.

¹¹² *See* NUREG-1577 at 13.

¹¹³ 10 C.F.R. § 50.75(b)(1).

¹¹⁴ 10 C.F.R. § 52.103(a).

of assurance is financially possible. Such tests are required when the funding method includes a parent company guarantee.¹¹⁵ Although these financial tests are specified in 10 C.F.R. § 50.75(e)(1)(iii)(B), the regulations are silent as to what point in the licensing process these tests must be completed.

A review of the Standard Review Plan relevant for decommissioning funding reveals that no mention is made of financial tests or their timing.¹¹⁶ The *Federal Register* publication of the Final Rule for Financial Assurance Requirements for Decommissioning similarly makes no mention of the timing of the financial tests.¹¹⁷

It is worth noting that this lack of specificity is unique to licensing under Part 52. Under earlier Part 50 licensing, all funding assurance documentation was required with the operating license application; under Part 52 licensing, some of the financial assurance is not required until after the license has been issued. Due to the sparsity of license applications heretofore processed under Part 52, a body of precedent upon which to judge the accepted practice for completing financial tests is not available.

The contention states that Applicant cannot demonstrate that the decommissioning funding strategy is financially possible. It is clear from the above that such a demonstration is required at some point in the licensing process. However, both regulations and guidance documents fail to state when such proof is required. It can be argued that this proof should be completed when Applicant specifies how financial assurance will be provided, because specification of the means to provide funding is useless if those means are not fiscally possible. Similarly, this early completion of the financial test would provide potential intervenors the opportunity to review and possibly litigate aspects of the financial assurance. Alternatively, there are equally good reasons why the Commission may have wanted financial tests to accompany the completed financial documents.

The Board finds that this contention has raised a legitimate issue of law regarding the proper timing for Applicant to submit the financial tests for parent company guarantees. If the financial tests are required at the application stage, then this contention has proposed a clearly admissible contention of omission. If financial tests are not required until after the license has been issued, then this contention may not be admitted.

Contention #2 is *admitted* in part. The Board is of the opinion that it is in the best interest of the management of this proceeding that this issue be segregated from the other contentions and immediately briefed. Accordingly, Joint Petitioners, Applicant, and NRC Staff are to file briefs that include, but need not be

¹¹⁵ 10 C.F.R. § 50.75(e)(1)(iii)(B).

¹¹⁶ See, e.g., NUREG-1577.

¹¹⁷ Financial Assurance Requirements for Decommissioning Nuclear Power Reactors, 63 Fed. Reg. 50,465 (Sept. 22, 1998).

limited to, any established relevant NRC review processes, Commission intentions regarding timing of the financial tests, and existing regulations supporting either option.¹¹⁸ If the Board determines that this issue can be decided through regulatory interpretation or examination of NRC case law, we will rule on this contention. However, if the Board determines that the regulations are ambiguous and that this is ultimately an NRC policy issue, we will refer this contention to the Commission.¹¹⁹ Shortly after issuance of this Order, the Board will convene a telephone conference to discuss the time frame in which these briefs should be submitted.

C. Contention #3

Joint Petitioners state in Contention #3:

The Calvert Cliffs-3 application's Environmental Report is unacceptably deficient because it omits from the analysis of CCNPP 3's environmental impact the new reactor's potential adverse contribution to the cumulative and potentially synergistic environmental impact of 11 operational reactor units and two proposed additional nuclear power projects on the watershed of an already severely degraded and declining Chesapeake Bay whose recovery plan is currently in serious doubt and the focus of a federal lawsuit for failure to comply with mitigation actions. Pet. at 11.

Joint Petitioners contend that the Environmental Report (ER) must analyze the cumulative effect of all existing and proposed nuclear power plants within the Chesapeake Bay (the Bay) watershed. Pet. at 13. Neither NRC Staff nor Applicant disputes that the ER must analyze the cumulative impact upon the Bay of CCNPP-3 and other past, present, and reasonably foreseeable future actions. However, the participants disagree whether the cumulative impact analysis must individually analyze the cumulative impact of CCNPP-3 and nuclear reactors located in areas of the Bay's watershed remote from the Calvert Cliffs site.

Under NEPA regulations promulgated by the Council on Environmental Quality (CEQ), "cumulative impact" is defined as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."¹²⁰ Although not expressly stated in section 1508.7, it is implicit that the relevant past, present, and reasonably

¹¹⁸The Board in *Crow Butte* handled the resolution of a purely legal issue by asking the parties for immediate briefing on the issue in question. We follow that approach here. See *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691, 760-61 (2008).

¹¹⁹See *Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-05-14, 61 NRC 359, 363-64 (2005).

¹²⁰40 C.F.R. § 1508.7.

foreseeable future actions are those that may reasonably be expected to affect the same resources (e.g., water, air, or wildlife) as the proposed action. In this instance, the relevant resource is the Chesapeake Bay.

The ER's evaluation of cumulative impacts "is based on a comparison between the existing environmental conditions presented in Chapter 2 and the potential adverse environmental impacts of construction and operation detailed in Chapter 4 and Chapter 5, respectively." ER § 10.5. The existing environmental conditions described in Chapter 2 of the ER include a detailed analysis of water quality in the Bay. ER § 2.3.3. In general, the water quality analysis does not separately evaluate the contributions of specific sources, such as nuclear power plants located outside Maryland, to the condition of the Chesapeake Bay. Rather, the ER examines existing conditions in the Bay to form an environmental baseline against which to measure the cumulative impact of the proposed new reactor. *Id.* Because the environmental baseline reflects the effects of all currently existing pollution sources in the Bay's watershed, it necessarily includes any contribution by nuclear power plants in the watershed, although it does not separately identify or quantify that contribution (or the contribution of any other industry).

Joint Petitioners demand that the cumulative impacts analysis should include, in addition to the ER's aggregate analysis, a separate, plant-specific analysis of the cumulative impact of CCNPP-3 and all nuclear reactors located or to be located within the Chesapeake Bay watershed. Pet. at 15. The Petition asserts that the nine existing nuclear power plant units within the Chesapeake Bay watershed¹²¹ "discharge chemical and radioactive contaminants into . . . tributary waters that then mix and accumulate in the Chesapeake Bay ecosystem." Pet. at 14. Joint Petitioners contend that the ER fails to acknowledge and omits from its analysis the discharge of these contaminants into the Bay. *Id.*

NRC Staff and Applicant respond that it is sufficient that the pollutant contribution of the nuclear power industry was included in the environmental baseline, and that a separate cumulative impact analysis specific to nuclear reactors located substantial distances from the Calvert Cliffs site need not be conducted. Applicant notes that the ER examines the cumulative environmental impact of the existing Calvert Cliffs Units 1 and 2 and the proposed Unit 3. It also points out, however, that the other nuclear power plants cited by Joint Petitioners are located more than 50 miles from the Calvert Cliffs site. Applicant argues that separate consideration of such geographically remote impacts is unreasonable and unnecessary. App. Ans. at 37.

¹²¹ These reactors are located in Virginia and Pennsylvania.

Discussion

We agree with Applicant and NRC Staff that Joint Petitioners have failed to provide any facts or expert opinion to justify requiring individual examination of the environmental effects of reactors located at substantial distances from the Calvert Cliffs site. We therefore do not admit Contention #3.¹²²

There is no dispute that the cumulative impact analysis must include the effect of past and present actions that might affect the same resources as the proposed action.¹²³ However, section 1508.7 does not expressly state whether the environmental effect of other past and present actions may be analyzed in the aggregate, as was done in the ER for reactors outside Maryland and most other pollutant sources, or must separately analyze individual past and present actions. Fortunately, guidance from the CEQ helps resolve this issue:

[a]gencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined. Agencies retain substantial discretion as to the extent of such inquiry and the appropriate level of explanation. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 376-77 (1989). Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.¹²⁴

Although this guidance is not binding on us, we have not been provided with any persuasive reason why we should not follow it. The United States Court of Appeals for the Ninth Circuit recently granted deference to this guidance, stating that “CEQ’s interpretation that 40 C.F.R. § 1508.7 permits consideration of all past impacts in the aggregate is not plainly erroneous or inconsistent with the language of the regulation, and CEQ is the agency charged with interpreting NEPA and that adopted the regulation.”¹²⁵ Furthermore, it would be inconsistent with NEPA’s rule of reason to require that the cumulative impacts analysis individually analyze the effects of remote facilities absent a demonstration that such additional effort would lead to a different conclusion.¹²⁶

¹²² See 10 C.F.R. § 2.309(f)(1)(v).

¹²³ 40 C.F.R. § 1508.7.

¹²⁴ President’s Council on Environmental Quality, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (June 24, 2005) at 2, available at <http://ceq.hss.doe.gov/nepa/regs/guidance.html>.

¹²⁵ *League of Wilderness Defenders—Blue Mountains Biodiversity Project v. U.S. Forest Service*, 549 F.3d 1211, 1218 (9th Cir. 2008).

¹²⁶ See *Department of Transportation v. Public Citizen*, 541 U.S. 752, 767 (2004) (“[I]nherent in NEPA and its implementing regulations is a ‘rule of reason,’ which ensures that agencies determine

(Continued)

To be sure, the CEQ guidance does not state an absolute rule. It suggests that an analysis of “the effects of individual past actions” may be required when “necessary to describe the cumulative effect of all past actions combined.”¹²⁷ In this case, however, Joint Petitioners have not provided any “alleged facts or expert opinion” to show that contaminants from upstream or downstream nuclear power plants accumulate in the Chesapeake Bay in a way that merits greater analysis than that already contained in the ER.¹²⁸ Nor have Joint Petitioners provided any alleged facts or expert opinion to show that any toxic or radiological contaminant was not considered or was improperly described in the ER. A “bald assertion that a matter ought to be considered or that a factual dispute exists . . . is not sufficient”; rather, “a 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.”¹²⁹ Without providing supporting sources or expert opinion to justify the need for additional cumulative impact analysis, Joint Petitioners have not met the requirements of 10 C.F.R. § 2.309(f)(1)(v).¹³⁰

Joint Petitioners also argue that the ER should have analyzed the cumulative impact of CCNPP-3 and two other proposed new reactors to be located in the Chesapeake Bay watershed. Pet. at 14. COL Applications for both reactors are currently pending before the NRC. One reactor is located on the North Anna River in Virginia, the other on the Susquehanna River in Pennsylvania. Both appear to be located at least 100 miles from the CCNPP-3 site. On the subject of

whether and to what extent to prepare an EIS based on the usefulness of any new potential information to the decision-making process”) (citation omitted); *see also Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 48, 49 (1978).

¹²⁷ *See* President’s Council on Environmental Quality, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (June 24, 2005) at 2, *available at* <http://ceq.hss.doe.gov/nepa/regs/guidance.html>.

¹²⁸ 10 C.F.R. § 2.309(f)(1)(v).

¹²⁹ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998) (citing *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305 (1995) (A petitioner is obligated “to provide the [technical] analyses and expert opinion” or other information “showing why its bases support its contention”)).

¹³⁰ Joint Petitioners rely upon a “Notice of Intent to Sue” filed by the Chesapeake Bay Foundation, alleging failures by the United States Environmental Protection Agency to properly enforce federal environmental laws. Pet. at 16; *see also* Pet. Exh. 14, Chesapeake Bay Foundation Letter Dated October 29, 2008, “Notice of Intent to Sue for Failure to Comply with the Chesapeake 2000 Agreement” (Nov. 19, 2008). The notice is merely a statement of claims the Foundation intends to pursue in federal court. It is not admissible as evidence of the matters asserted in the notice, and therefore it does not constitute evidence sufficient to meet Joint Petitioners’ burden under section 2.309(f)(1)(v). Moreover, the notice does not allege that toxic or radioactive discharges are causing harm to the Bay. Instead, the notice is focused on issues such as low oxygen levels caused by elevated nutrient levels and limited water clarity. Thus, the notice provides no support for Contention #3.

the cumulative impact of proposed new projects, the Supreme Court has stated “when several proposals for . . . actions that *will have cumulative or synergistic environmental impacts* upon a region are pending concurrently before an agency, their environmental consequences must be considered together.”¹³¹ No evidence before us suggests that the proposed new reactors within the Chesapeake Bay watershed “will have” a cumulative or synergistic environmental impact upon the Chesapeake Bay.

We therefore *do not admit* Contention #3 because it lacks the support required by section 2.309(f)(1)(v).

D. Contention #4

Joint Petitioners state in Contention #4:

The UniStar application’s Environmental Report (ER) is unacceptably deficient because it omits from the analysis of CCNPP 3’s reactor (USEPR) design and safety of the CCNPP facility, additional relevant impacts arising from the expansion of the Dominion Cove Point Liquefied Natural Gas (DCPLNG) facility located 3.2 miles south of the proposed reactor.

Pet. at 17.

In this contention, Joint Petitioners assert that the evaluation of risk to the CCNPP-3 plant due to the expansion of the DCPLNG facility is deficient. They assert that a number of risk aspects have been omitted from the evaluation. Most of the text of this contention contains descriptions of the many omissions. However, despite the fact that Joint Petitioners quoted copiously from the Application, there is little substance in this contention.

NRC Staff’s response to this contention treated the specific allegations by assigning them to five general categories. NRC Staff addressed each of these categories and argues each to be inadmissible as follows:

1. The ER does not discuss additional impacts from DCPLNG’s recent expansion. This claim “is inadmissible because the application does discuss additional impacts from the DCPLNG expansion, and the Petitioner has not articulated a genuine dispute with the Applicant on a material issue.” Staff Ans. at 30.
2. The ER mischaracterizes a possible LNG accident, including a large vapor cloud migrating to the site of the proposed reactor, and then igniting. This claim “is inadmissible because the Applicant does discuss a delayed ignition, migrating vapor cloud in its Application; because the Petitioner

¹³¹ *Kleppe v. Sierra Club*, 427 U.S. 390, 410 (1976) (emphasis added).

does not identify the specific sources upon which it relies for Claim 2; and because the Petitioner has not articulated a genuine dispute with the Applicant.” Staff Ans. at 31.

3. The ER omits the effects of an LNG fire on the temperature of the cooling water that the existing and proposed reactors draw from the Chesapeake Bay. This claim “is inadmissible because the Petitioner has not articulated a genuine dispute with the Applicant on a material issue, as they have provided no supporting reasons for why the alleged omission is required.” Staff Ans. at 34.
4. The ER does not discuss the impacts from the expansion of the DCPLNG offshore pier, a part of the DCPLNG expansion. This claim “is inadmissible because it is outside the scope of this proceeding and because the Petitioner has not demonstrated a genuine dispute with the Applicant on a material issue.” Staff Ans. at 35.
5. The FSAR does not discuss LNG unloading impacts. This claim “is inadmissible because the application does discuss risks from LNG unloading operations, and the Petitioner has not articulated a genuine dispute with the Applicant on a material issue.” Staff Ans. at 37.

Applicant recognized that the original contention consisted of a large number of individual specific allegations (similar to the enumeration provided in the Board analysis below) of missing information. In general, Applicant considers this contention to be inadmissible “because the application contains the allegedly omitted analysis and because the petitioners fail to demonstrate a genuine dispute on a material issue.” App. Ans. at 37. Applicant listed the individual allegations and provided reasons why each allegation was inadmissible.¹³²

¹³² 1. Joint Petitioners fail to show that this alleged omission is material to the findings that the NRC must make.
2. Joint Petitioners failed to provide any support for the alleged omission.
3. Information alleged to be missing was, in fact, contained within the Application.
4. Contention involved plans of third parties that are not yet concrete proposals and should be rejected.
5. Joint Petitioners point to no regulatory or statutory requirement that information in the Application be at the level of detail Joint Petitioners apparently desire.
6. Contention involves information concerning a different type of LNG facility that is not relevant for the current project.
7. Joint Petitioners provide no factual or expert support to demonstrate that any of the various studies cited are relevant.
8. The alleged omission is not clearly articulated and the proposed contention does not appear to directly challenge any specific portion of the application. App. Ans. at 38-52.

Discussion

To determine the admissibility of this contention, the Board must look to the admissibility requirements provided in 10 C.F.R. § 2.309(f)(1). As a general matter, Contention #4 meets the requirements of section 2.309(f)(1)(i)-(iv). Joint Petitioners raise the issue that the ER is deficient because it omits a risk evaluation of impacts arising from the expansion of the DCPLNG facility. Joint Petitioners provide a basis for this contention by making 18 specific allegations of omissions in the Application, arising either from the ER analysis, the Maryland Power Plant Research Program Report (PPRP)¹³³ referred to in the Application, or the plant risk evaluation. Furthermore, Joint Petitioners demonstrate this contention is within the scope of the proceeding; the issues raised concern completeness of Applicant's ER, and potentially the EIS NRC Staff will have to prepare. Finally, Joint Petitioners raise an issue that concerns the completeness of the ER, and potentially of the EIS, the completion of which is required for the issuance of a license. Therefore, the contention is clearly material.

Joint Petitioners have satisfied the first four requirements of section 2.309(f)(1); however, they fail to fully meet the remaining two requirements for contention admissibility.¹³⁴ Joint Petitioners make a number of allegations concerning the completeness of the ER. However, as illustrated below, references to alleged facts or expert opinions to support their allegations, as required by section 2.309(f)(1)(v), are entirely lacking. 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 text that provide such reasons.”¹³⁵ Aside from listing a series of phenomena relating to potential DCPLNG accidents, Joint Petitioners have provided neither facts nor expert opinions to support their argument that the risk evaluation in the Application is inadequate because evaluation of these effects has been omitted.

Even if some scant support for these allegations is provided, this contention is inadmissible because it fails to provide any reason as to why the allegedly missing information should be included in the Application. Joint Petitioners raise Contention #4 as a contention of omission. According to section 2.309(f)(1)(vi), “if the petitioner believes that the application fails to contain information on a relevant matter as required by law, [the petitioner must identify] each failure and the supporting reasons for the petitioner's belief.” Here, Joint Petitioners raise eighteen specific examples of deficiencies due to alleged omissions in

¹³³ See Cove Point LNG Terminal Expansion Project Risk Study, Maryland Power Plant Research Program, available at http://esm.versar.com/pprp/bibliography/PPRP-CPT-01/CovePt.FINAL_Aug2006.pdf [hereinafter PPRP Report].

¹³⁴ 10 C.F.R. § 2.309(f)(1)(v)-(vi).

¹³⁵ *Pilgrim*, LBP-06-23, 64 NRC at 356 (quoting 54 Fed. Reg. at 33,170).

the evaluation of plant safety with regard to the neighboring DCPLNG facility. By stating in this contention that the “Environmental Report is unacceptably deficient,” Pet. at 17, Joint Petitioners are implicitly referring to Applicant’s failure to comply with NEPA and 10 C.F.R. Part 51. Though Joint Petitioners have implicitly identified a pertinent regulation, they fail to establish that the omissions they allege are required by NEPA.

NEPA analyses are subject to a “rule of reason,”¹³⁶ but to apply a rule of reason it is necessary to have a criterion upon which reasonableness may be determined. The Commission has stated “the agency’s environmental review . . . need only account for those impacts that have some likelihood of occurring or are reasonably foreseeable.”¹³⁷ The Commission has determined that “low probability is the key to applying NEPA’s rule-of-reason test to contentions that allege that a specifi[c] accident scenario presents a significant environmental impact that must be evaluated.”¹³⁸ That is, “if the accident sought to be considered is sufficiently unlikely, such that it can be characterized fairly as remote and speculative, then consideration under NEPA is not required as a matter of law.”¹³⁹ The Commission has found that “events having a less than a one in one million probability of occurring are not ‘credible events.’”¹⁴⁰ Taken together, these individual statements lead to the conclusion that 10^{-6} is a reasonable threshold for considering events under NEPA.

To apply the rule of reason to the DCPLNG facility, it is necessary to consider the probability of an accident at the DCPLNG facility affecting CCNPP-3. The PPRP study calculated that the risk of any fatalities at the plant as a result of a hazardous event occurring at the current DCPLNG facility or the future expanded facility is estimated to be between 2 and $2\frac{1}{2}$ per billion or 6 and 7 per billion per year, respectively.¹⁴¹ The NRC has determined that the acceptable risk to a nuclear power plant from external activities is “1.0 in a million (10^{-6}) per year

¹³⁶ See *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 834 (D.C. Cir. 1982).

¹³⁷ *Louisiana Energy Services, LP* (National Enrichment Facility), LBP-06-8, 63 NRC 241, 258-59 (2006); see also *Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973).

¹³⁸ *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-90-7, 32 NRC 129, 131 (1990).

¹³⁹ *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-90-4, 31 NRC 333 (1990).

¹⁴⁰ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 255 (2001).

¹⁴¹ “The individual risk of fatality at CCNPP from all hazardous events associated with the existing LNG facility is estimated to be between 2 and $2\frac{1}{2}$ per billion (2.3×10^{-9}) each year, an extremely low risk level. The risk of damage to CCNPP is likely to be lower still. The individual risk from the expanded facility is between 6 and 7 per billion (6.6×10^{-9}) each year at the CCNPP.” PPRP Report at 39.

for Core Damage Frequency (CDF) and 0.1 in a million (10^{-7}) per year for Large Early Release Frequency (LERF).¹⁴²

Since the calculated risk of damage to CCNPP-3 is likely to be less than 6.6×10^{-9} , clearly the estimated risk of significant damage to CCNPP-3 is significantly less than 6.6×10^{-9} . This is more than a factor of 100 smaller than 10^{-6} , which is the threshold above which accident scenarios must be evaluated for NEPA considerations, as discussed above. Similarly, it is more than a factor of 100 smaller than the 10^{-6} threshold above which it must be evaluated in the plant safety analysis.¹⁴³ Thus, for a new DCPLNG accident scenario (or one corrected as requested in this contention) to raise the severity of LNG accidents to the threshold where they must be considered in the Application, it must increase the plant risk by at least a factor of 100.

Finally, Joint Petitioners fail to satisfy section 2.309(f)(1)(vi) because they fail to provide the supporting reasons for their belief that the risk evaluation in the ER contains omissions. As a minimal “supporting reason” for admitting this contention of omission, there should be some showing that correction of these omissions would significantly increase the calculated risk to CCNPP-3, and that this increase could potentially exceed a factor of 100. With this in mind, we examine each of the individual alleged omissions to determine if the alleged omission is, in fact, omitted from the ER, and if any credible reason is provided that the alleged omission should have been included in the ER.

1. The ER omits the effect of the aforementioned LNG spill on water triggering a cumulative domino effect on the DCPLNG pipeline and storage tanks.

Pet. at 18. This alleged omission is in error as the subject analysis was extensively included in the PPRP.

2. The ER omits analysis of the impact of temperature rise of the cooling water to CCNPP-3 and the proposed Unit 3 due to the prolonged heating of the Chesapeake Bay cooling water from the radiant heat of this ignited LNG vapor cloud.

Pet. at 18. Joint Petitioners have provided no support for the concept that an LNG fire would cause a significant increase in water temperatures in the Chesapeake

¹⁴² PPRP Report at 9.

¹⁴³ See NUREG-1407, “Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities,” at 4 (June 1991) (“Plants designed against NRC’s current criteria (NUREG/CR-5042) should have no significant vulnerability to severe accidents from these events because the initiators considered in the design should have a recurrence frequency less than 10^{-6} ”).

Bay that would impact CCNPP-3, and have not provided any reason why this alleged effect should be included in the ER.

3. The ER omits analysis and impact of this modification to the pier which will add 150 feet to each end of the offshore platform thereby increasing the “footprint” of the pier, support pilings and platform.

Pet. at 18. At oral argument, NRC Staff noted that the plan for pier expansion has proceeded to the point of requesting appropriate state approvals. Hrg. Tr. at 102. Joint Petitioners fail to provide an explanation of how the “footprint” of the pier, at 3 miles from CCNPP-3, could affect the plant.

4. Figure 2.2-1 of the FSAR omits from the site map, the offshore LNG pier, underground LNG loading tunnel and the submerged DCPLNG pipeline.

Pet. at 19. Joint Petitioners fail to demonstrate that this level of detail is required on the subject figure. Moreover, Joint Petitioners have not demonstrated that this omission is material, as the information is available in different form within the Application.

5. The ER also omits risk analysis of the impact of LNG unloading operations which involve the pier, underground tunnel, and the LNG ship carrying capacity which affect volume and duration of risk exposure.

Pet. at 19. This alleged omission is incorrect as the PPRP risk study clearly includes evaluation of unloading operations.

6. The Applicant’s ER is deficient in its risk analysis of a catastrophic LNG spill on water.

Pet. at 22. While the PPRP Study and, therefore, the ER, did not consider the loss of all LNG tanks on a tanker, they did include the effects of loss of a full tank on a tanker. Joint Petitioners provided no information suggesting why the more severe and far less likely loss of all tanks needs to be included.

7. The above conclusion omits the possibility that the fast expanding vapor cloud could migrate before ignition to the CCNPP-3 area and omits a total loss of LNG inventory from a large LNG tanker.

Pet. at 25. The referenced PPRP study does evaluate the potential for migration of a vapor cloud. Joint Petitioners provided no information suggesting why the more severe and far less likely loss of all tanks needs to be included. Hence, this is not a valid omission.

8. The Applicant's study also omits in its analysis, the added radiant heat that could ensue when Calvert Cliffs acts as a fire fence.

Pet. at 26. Joint Petitioners do not define "fire fence," nor does this term appear to be common terminology. Joint Petitioners do not describe how a "fire fence" could increase the risk to the CCNPP-3 due to radiant heat from an LNG accident.

9. Another omission is the risk analysis of larger LNG ships which will be docking at the modified LNG pier which is closer to CCNPP-3.

Pet. at 26. This expansion will place the nearest point on the pier approximately 2% closer to the CCNPP-3 facility. Joint Petitioners fail to provide any information to suggest that this small change in distance will significantly increase the risk to CCNPP-3, thus failing to demonstrate the materiality of this allegation.

10. The Applicant's ER also omits the 2005 Sandia National Laboratories study (SAND 2005-7339), that confirmed the range of LFL (Lower Flammability Limit) could be as far as 11,175 meters or 7 miles.

Pet. at 26. The subject Sandia study involved a site-specific assessment of a particular LNG facility of a different design. Joint Petitioners made no showing that studies of that facility are applicable to the facility at Cove Point.

11. *Table 2.2-10* Toxic Vapor Cloud Analysis omits analysis of possible Toxic Air Pollution from rapid LNG vaporization and mass high combustion of gasified LNG on a catastrophic LNG spill over water.

Pet. at 27. As stated in the Application, there is no toxicity limit for natural gas. This was not disputed by Joint Petitioners.

12. The conclusions and assumptions described in 2.2.3.1.1 Explosions, use the TNT equivalency method and omit the explosions caused by the consequences of a catastrophic LNG spill over water which may not behave similarly or use the same assumptions, thereby omitting analysis of an appropriate method for evaluating damage.

Pet. at 27. This allegation suggests that the TNT equivalency method may not be appropriate. However, the TNT equivalency method is the method endorsed in Reg. Guide 1.91¹⁴⁴ for evaluation of explosions. The contention fails to provide any reason why TNT equivalency may not be appropriate for this analysis. No

¹⁴⁴Regulatory Guide 1.91, "Evaluation of Explosions Postulated to Occur on Transportation Routes near Nuclear Power Plants," Rev. 1 (1978).

other support for this argument is provided. This is a vague and bald assertion that is an insufficient basis to support a contention.

13. The aforementioned analysis and discussion of 2.2.3.1.2 Flammable Vapor Clouds (Delayed Ignition) omits full breach of ship borne LNG over water (Chesapeake Bay) especially at or near the LNG offshore pier where the greatest safety risk occurs.

Pet. at 28. This is a repetition of allegation 6, and for the same reason does not provide support for a valid contention.

14. The assumption that the “entire contents of the vessel leaked forming a 1 cm thick puddle providing a significant surface area to maximize evaporation and the formation of a vapor cloud” definitely omits risk analysis of a catastrophic LNG spill over water.

Pet. at 28. The PPRP risk study clearly includes evaluation of the consequence of a LNG spill over water. Since this information is contained in the PPRP study, this allegation does not reflect a genuine omission from the Application.

15. The aforementioned conclusions for 2.2.3.1.3 Toxic Chemicals, Table 2.2.7 and Table 2.2-8 utilized the PPRP study of DCPLNG which is deficient on the current situation of “full breach of the ship borne LNG spill on water.”

Pet. at 29. This statement alleges that specific tables of the ER are deficient because they relied on the PPRP study. No facts are provided to support this as a deficiency.

16. PPRP study also omitted the LNG Spill Consequence Studies depicted in the aforementioned GAO-07-316 Feb 2007 report.

Pet. at 29-30. Joint Petitioners provide no factual or expert support to demonstrate that any of the various studies described in the GAO report are relevant to and call into question any of the conclusions in the PPRP Study.

17. The Applicant’s ER and the PPRP Study both omit analyses that size and spread of the flammable vapor cloud affects LNG pool fire size and duration, with heat flux greater than 350 kW/m² given “worst case conditions” for an LNG spill over water that could be different from the assumptions made for a “worst case condition” that would occur on a nuclear power plant since only CCNPP-3 has the unique siting of DCPLNG with an offshore unloading pier within its hazard inclusion zone.

Pet. at 30. This allegation is not sufficiently clear to express any genuine dispute with the Application. No information is provided to support the allegation that a heat flux of 350 kW/m² is a more appropriate value of heat flux to use than the value used in the PPRP study.

18. Furthermore, the ER and PPRP omit risk analysis of secondary fires that would probably occur with instantaneous combustion from radiant heat of the LNG pool fire which will burn office paper, carpet, office furniture and computers and risk damaging sensitive equipment, negatively impacting safety and operations of CCNPP-3 and the proposed reactor.

Pet. at 30. Joint Petitioners have failed to provide any information that would suggest that secondary fires could be started at the CCNPP-3 due to radiant heat from a LNG fire. Additionally, the PPRP and the Application both include this allegedly missing evaluation and indicate that such secondary fires would not occur. Since the allegedly missing information is indeed included in the Application, this is not a genuine omission.

In summary, each of the specific allegations of omissions does not individually pass the standards of admission for contentions for reasons specified above. The contention does not claim that correction of these alleged omissions will increase the calculated risk to the plant nor is there any suggestion that the combined effect of all alleged deficiencies could have a factor of 100 effect on the risk from that facility. This is the chance of risk necessary for the LNG facility to pose a significant risk to CCNPP-3. Thus, this contention does not raise a material issue. Due to Joint Petitioners' failure to meet all the requirements of 10 C.F.R. § 2.309(f)(1), this contention is *not admitted*.

E. Contention #5

Joint Petitioners state in Contention #5:

The UniStar application's Environmental Report (ER) is unacceptably deficient because it omits the combined and cumulative mechanical stress to Chesapeake Bay biota caused by the cooling water intake pumps for the proposed Unit 3, CCNPP units 1 and 2 water intake pumps and the water ballast intake pumps of the LNG tanker ships that are operational during LNG unloading operations at the Dominion Cove Point LNG (DCPLNG) pier.

Pet. at 32.

Joint Petitioners assert that the cumulative mechanical stress¹⁴⁵ of these three major pump sources has a deleterious effect on biota in an already deteriorating Chesapeake Bay. Pet. at 32. They argue that the effects of the cooling pumps at Calvert Cliffs Units 1 and 2, along with the effects of the ballast pumps from tanker ships docking at DCPLNG, should be analyzed cumulatively with the effects of the cooling pumps at CCNPP-3. Because this analysis is not included in Applicant's ER, Joint Petitioners contend that the Application is inadequate. *Id.*

Applicant claims that Contention #5 is inadmissible because the ER includes the analysis Joint Petitioners allege is omitted.¹⁴⁶ App. Ans. at 53. Furthermore, Applicant argues that Joint Petitioners fail to provide any factual or expert support for this contention, thereby failing to fulfill the requirements of 10 C.F.R. § 2.309(f)(1)(v). *Id.* at 55. NRC Staff contends that Joint Petitioners fail to identify the portions of the Application that are relevant to the alleged omissions and fail to identify how the alleged omission is a matter required by law to be included in the Application. Joint Petitioners therefore do not satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi). Staff Ans. at 39-41.

Discussion

Applicant has shown that the ER addresses the cumulative impact of the cooling water intake pumps for CCNPP-3 and Calvert Cliffs Units 1 and 2. The ER also considers the overall cumulative impact of the CCNPP-3 pumps upon the Chesapeake Bay and its biota. Joint Petitioners have not provided any facts or expert opinion to show that the analysis in the ER must be further developed to specifically address the effects of the ballast water intake pumps. Accordingly, we do not admit Contention #5.

Joint Petitioners identify the information missing from the ER as an analysis of the combined mechanical stress imposed by the Calvert Cliffs and ballast water intake pumps on the Chesapeake Bay and its biota. As discussed in the Board's Contention #3 analysis, *supra*, "cumulative impact" is defined as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."¹⁴⁷

The Board has examined the sections of the ER cited by Applicant to support its argument that the allegedly missing information is included in the ER. ER

¹⁴⁵ Joint Petitioners clarified at oral argument that the "mechanical stress" of concern in this contention consists of impingement, entrainment, and the stirring up of sediment due to the additional flow of water caused by intake pumps. Hrg. Tr. at 109.

¹⁴⁶ Applicant identifies the sections in which the cumulative effects analysis is included: sections 3.4.2.1, 5.3.1.1, 5.3.1.2, and 10. Applicant also claims that its inclusion of the LNG terminal in this analysis can be found in sections 2.8.6 and 10.5.2 of the Application.

¹⁴⁷ 40 C.F.R. § 1508.7.

§ 5.3.1.2 discusses CCNPP-3's water intake structure and how it affects fish and other aquatic life in the Bay through entrainment and impingement. It also discusses the extensive data collected concerning the impact upon aquatic biota of the water intake structures for Calvert Cliffs Units 1 and 2. ER § 5.3.1.2 then explains that the cumulative impact of the CCNPP-3 water intake structure and the existing intake structures for Units 1 and 2 will be minor:

Based on the facts that (1) the proposed cooling tower-based heat dissipation system will, under normal circumstances, withdraw small amounts of Chesapeake Bay water compared to CCNPP Units 1 and 2, (2) the design of the intake structures and cooling water system incorporates a number of features that will reduce impingement and entrainment, and (3) the experience that suggests that the Chesapeake Bay fish and shellfish populations have not been adversely affected by operation of CCNPP Units 1 and 2, it is concluded that the impacts of the intakes for the cooling water systems will be SMALL and will not warrant mitigation measures beyond the design features previously discussed.

ER § 10.5 describes the cumulative impacts of the construction and operation of CCNPP-3. Concerning the cumulative impact of CCNPP-3's water intake structures and cooling water system upon the Bay, it states:

Aquatic impacts attributable to operation of the CCNPP Unit 3 intake structures and cooling water systems include impingement of organisms on the traveling screens and entrainment of fish and invertebrate eggs and larvae within the cooling system. Use of closed-cycle cooling systems at CCNPP Unit 3 will significantly reduce these impacts compared to power plants that operate open-cycle (once-through). In addition, CCNPP Unit 3 will incorporate additional design criteria to limit impingement including intake approach velocities to less than 0.5 ft/sec (0.15 m/sec).

Although some small amount of entrainment will occur, studies indicate that the CCNPP site area is not a spawning area for key species of commercial or recreational value, and that entrainment at CCNPP Units 1 and 2 has not resulted in detectable changes in population levels. Further, the dominant species that occur in the CCNPP site area of the Chesapeake Bay have not been identified as requiring habitat protection.¹⁴⁸

On the other hand, no ER section identified by Applicant singles out for separate discussion the combined impact on the Bay and its biota of the CCNPP-3 water intake pumps, the water intake pumps for Units 1 and 2, and the ballast water intake pumps. Contention #5 alleges that the ER should have included this analysis.

¹⁴⁸ ER § 10.5.2.

The contention includes a specific statement of law or fact to be raised or controverted and provides a brief explanation of the basis for their contention. Contention #5 is within the scope of the proceeding, since it concerns the adequacy of the ER for CCNPP-3. Contention #5 is a contention of omission. A properly pled contention of omission claims that “the application fails to contain information on a relevant matter as required by law . . . and [provides] the supporting reasons for the petitioner’s belief.”¹⁴⁹ Because the omitted information is required by law, such a contention, if supported, “necessarily presents a genuine dispute with the Applicant on a material issue in compliance with 10 C.F.R. § 2.309(f)(1)(vi) [and] . . . raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance.”¹⁵⁰

As with Contention #3, however, Joint Petitioners have failed to provide facts or expert opinion that would require Applicant to expand the existing cumulative impact analysis. The requirements of section 2.309(f)(1)(v) have been interpreted to require a petitioner to “present the factual information and expert opinions necessary to support its contention adequately,”¹⁵¹ 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.”¹⁵² A petitioner’s issues will be ruled inadmissible if the petitioner “‘has offered no tangible information, no experts, no substantive affidavits,’ but instead only ‘bare assertions and speculation.’”¹⁵³

Here, Joint Petitioners have provided no supporting documents or references to support their position that the cumulative effects of CCNPP-3 cooling water intake pumps, added to the effects of Units 1 and 2 intake pumps and ballast water intake pumps for DCPLNG tankers, will have a significant, deleterious effect on Chesapeake Bay biota that has not already been considered in the ER. In particular, Joint Petitioners do not support their claim that proximity of the CCNPP-3 intake to the DCPLNG terminal somehow makes the cumulative impacts worse than acknowledged in the ER’s cumulative effects discussion. Although Joint Petitioners submitted a letter detailing a suit by the Chesapeake Bay Foundation against the federal government, they do not explain how the suit supports this contention.¹⁵⁴

¹⁴⁹ 10 C.F.R. § 2.309(f)(1)(vi).

¹⁵⁰ *Pa’ina Hawaii, LLC*, 63 NRC at 414.

¹⁵¹ *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-04-14, 60 NRC 40, 55 (2004).

¹⁵² *Pilgrim*, 64 NRC at 355.

¹⁵³ *Vermont Yankee*, LBP-04-28, 60 NRC at 555 (quoting *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003)).

¹⁵⁴ *See Pet.*, Exh. 14.

Therefore, due to Joint Petitioners' failure to support this contention with facts or expert opinions, Contention #5 is *not admitted*.

F. Contention #6

Joint Petitioners state in Contention #6:

The application is deficient in its discussion of high-level waste that would be generated by Calvert Cliffs-3.

6-A: Failure to Evaluate Whether and in What Time Frame Spent Fuel Generated by Calvert Cliffs Unit 3 Can Be Safely Disposed Of.

Pet. at 35.

Joint Petitioners contend that the ER “is deficient because it fails to discuss the environmental implications of the lack of options for permanent disposal of the irradiated (i.e., ‘spent’) fuel that will be generated by the proposed reactors.” Pet. at 35. Recognizing that the Commission has addressed this issue on a generic basis by regulation, Joint Petitioners state that, “[w]hile Applicants may have intended to rely on the NRC’s Waste Confidence decision, issued in 1984 and most recently amended in 1999, that decision is inapplicable because it applies only to plants which are currently operating, not new plants.” Pet. at 37. According to Joint Petitioners, the Commission has given “no indication that it has confidence that repository space can be found for spent fuel and other high-level radioactive waste from new reactors licensed after December 1999.” *Id.*

Discussion

Other boards have considered contentions much like this one, and have consistently rejected them.¹⁵⁵ We agree that the contention is inadmissible. As one recent decision explained,

In its Waste Confidence Rule, the Commission has made a determination, on a generic basis, that spent fuel generated by “any reactor” can be safely managed and that sufficient repository capacity will be available. When the Commission promulgated a revised Waste Confidence Rule in 1990, it expressly stated that its

¹⁵⁵ See *Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-08-16, 68 NRC 361, 416 (2008); *Vogtle*, LBP-07-3, 65 NRC at 267-68; *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 NRC 229, 246-47 (2004); *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 268-69 (2004); *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), LBP-04-19, 60 NRC 277, 296-97 (2004).

conclusions should apply to “the spent fuel discharged from any new generation of reactor designs.” The Commission reaffirmed its 1990 findings in a 1999 status report, in which it concluded that “no significant and unexpected events have occurred . . . that would cast doubt on the Commission’s Waste Confidence findings or warrant a detailed reevaluation at this time.” More recently, in 2007, the Commission amended the Waste Confidence Rule to clarify that the rule encompasses COL applications such as Duke’s. In light of the plain language of the rule and its regulatory history, the Waste Confidence Rule applies to this proceeding.¹⁵⁶

Contention #6A is therefore an impermissible challenge to the Rule, and we may not admit it.

6-B: Even if the Waste Confidence Decision Applies to This Proceeding, It Should be Reconsidered.

Pet. at 44.

Joint Petitioners ask the Board to reconsider a Commission regulation. We are prohibited from doing so by 10 C.F.R. § 2.335(a). Absent a showing of “special circumstances,” under 10 C.F.R. § 2.335(b), which Joint Petitioners have not made, this matter must be addressed through Commission rulemaking.¹⁵⁷ In that regard, the Commission has announced proposals to revise its Waste Confidence Rule and its Waste Confidence Decision, and that it is accepting public comment on both proposals.¹⁵⁸ Joint Petitioners and others who believe the Waste Confidence Rule needs revision must use those proceedings to express their concerns.¹⁵⁹ Contention #6B is *not admitted*.

G. Contention #7

Joint Petitioners state in Contention #7:

UniStar Nuclear Operating Service’s (UniStar) application to build and operate Calvert Cliffs Nuclear Power Plant Unit 3 violates the National Environmental Policy Act by failing to address the environmental impacts of the waste that it will generate in the absence of licensed disposal facilities or capability to isolate

¹⁵⁶ *William States Lee*, LBP-08-17, 68 NRC at 456-57 (footnotes and citations omitted).

¹⁵⁷ *North Anna*, LBP-04-18, 60 NRC at 270.

¹⁵⁸ See Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation, 73 Fed. Reg. 59,547 (Oct. 9, 2008); Waste Confidence Decision Update, 73 Fed. Reg. 59,551 (Oct. 9, 2008).

¹⁵⁹ See *Oconee*, CLI-99-11, 49 NRC at 345 (“If Petitioners are dissatisfied with our generic approach to the problem, their remedy lies in the rulemaking process, not in this adjudication”).

the radioactive waste from the environment. UniStar's environmental report does not address the environmental, environmental justice, health, safety, security or economic consequences that will result from lack of permanent disposal for the radioactive wastes generated.

Pet. at 47.

This statement is expanded in Joint Petitioners' discussion and in the Declaration of Diane D'Arrigo, Joint Petitioners' expert on "the policy aspects and general technical characteristics of so-called 'low-level' radioactive waste." Pet. at 48-52; D'Arrigo Decl., ¶2.¹⁶⁰ Joint Petitioners' primary concern is that, in the absence of an offsite disposal facility, "the issue of long-term radioactive waste management and disposal of Class B, C and Greater-Than-C 'low-level' radioactive waste is not adequately addressed in the Calvert Cliffs-3 COLA." Pet. at 48. Joint Petitioners observe that the Application's discussion of solid radioactive waste management assumes that LLRW generated at CCNPP-3 will be sent to an offsite disposal facility. *Id.* at 48-49. Various sections of the ER that discuss radioactive waste management rely on this assumption.¹⁶¹ In addition, the ER includes a diagram, described as a "flow diagram of the inputs and processes associated with the solid waste system,"¹⁶² which shows various LLRW streams being processed, temporarily stored onsite, and then shipped to a "Low Level Rad [*sic*] Waste Disposal Facility." ER, Figure 3.5-8.

As Joint Petitioners note, however, "after June 30, 2008 . . . no facility in the United States is licensed and able to accept for disposal, Class B [or] C . . . radioactive waste from the Calvert Cliffs Unit 3 nuclear power reactors." Pet. at 49. The Barnwell, South Carolina disposal facility was closed to Class B and C radioactive waste from facilities operating in Maryland and various other states on June 30, 2008. D'Arrigo Decl. ¶5. After that date, generators of Class B and C radioactive waste in Maryland will have no licensed disposal site to which to send their waste. According to Joint Petitioners, Applicant has failed "to offer a viable plan for disposal of Class B, C and Greater-than-C so-called 'low-level' waste generated in the course of operations, closure and post-closure of Calvert Cliffs Unit 3" in the absence of an offsite disposal facility such as Barnwell. *Id.* Joint Petitioners further state that "the applicant provides no detail regarding the ongoing onsite management and potential impact from permanent or very long

¹⁶⁰The electronic copy of Ms. D'Arrigo's November 19, 2008 declaration that was submitted to the NRC did not include her signature. However, Joint Petitioners subsequently provided a second declaration, dated December 22, 2008, in which she stated that she did in fact sign her November 19 declaration.

¹⁶¹ER §§ 3.5.4.1, 3.5.4.2, 3.5.4.3, 3.5.4.5.

¹⁶²ER § 3.5.4.

term storage of all the B, C and >C radioactive waste from operations on the site of generation.’’ Pet. at 48.

Joint Petitioners’ second concern also reflects their belief that, without a permanent offsite disposal facility, LLRW will remain onsite indefinitely. According to Joint Petitioners, this means that “[t]he Environmental Report should also evaluate the impacts of licensing the site itself under 10 C.F.R. Part 61’’ Pet. at 50.

Joint Petitioners’ final concern is that, due to onsite storage of LLRW, the decommissioning cost estimate may be inadequate:

In Section 1.3.1, the decommissioning cost estimate does not reference the cost of Class B, C and Greater-than-C radioactive waste that may be stored on site at that point. Section 1.3.3 Decommissioning Costs and Funding — Status Reporting.

Finally, Joint Petitioners state in a footnote that the contention raises a challenge to Table S-3 of 10 C.F.R. § 51.51. Pet. at 47 n.7. They state that this challenge is justified because, under *Marsh v. Oregon Natural Resources Council*,¹⁶³ the EIS for the licensing of CCNPP-3 must include new and significant information relevant to the environmental impacts of the proposed facility.

Applicant and NRC Staff oppose admission of Contention #7. NRC Staff argues that the contention may not be admitted because it raises an impermissible attack upon Table S-3 of 10 C.F.R. § 51.51. Staff Ans. at 46. Applicant and NRC Staff contend that licensing of a disposal site under 10 C.F.R. Part 61 is too speculative and therefore not material to the findings the NRC must make to grant the COL. *Id.* at 49; App. Ans. at 63. Applicant further notes that the disposal of Greater-Than-Class-C waste is not directly affected by the closure of the Barnwell facility because it is the responsibility of the federal government. App. Ans. at 63. Applicant also argues that there is a “clear disposition path” for removing Class B and C wastes from the CCNPP-3 site, and that the information sought by Joint Petitioners is already contained in the ER. *Id.* at 63-66.

Discussion

We agree with Applicant and NRC Staff that the contention is inadmissible insofar as it concerns Greater-Than-Class-C waste, licensing of a disposal site under 10 C.F.R. Part 61, or a challenge to Table S-3 of 10 C.F.R. § 51.51. The contention is also inadmissible as a challenge to the decommissioning cost estimate. Nevertheless, despite these inadmissible aspects of the contention, we have narrowed it to a specific NEPA contention that meets the admissibility

¹⁶³ 490 U.S. 360 (1989).

criteria of 10 C.F.R. § 2.309(f)(1) and does not conflict with NRC regulations. We admit the narrowed contention.

Inadmissible Aspects of Contention #7

Although Joint Petitioners refer to “Class B, C, or Greater-Than-Class-C radioactive waste,” Pet. at 49, only the management of Class B and Class C wastes is properly the subject of this contention because only those types of waste are directly impacted by the closure of the Barnwell facility.¹⁶⁴ The partial closure of the Barnwell facility does not directly affect the disposal of Greater-Than-Class-C radioactive waste because the disposal of that type of waste is the responsibility of the federal government.¹⁶⁵ Joint Petitioners have not provided any factual foundation to show that the United States will fail in its responsibility to provide for the disposal of Greater-Than-Class-C waste.

The claim that Applicant should consider licensing the CCNPP-3 site under 10 C.F.R. Part 61 is outside the scope of this proceeding. Similar claims were rejected in recent cases that also involved proposed reactors in states that, like Maryland, presently lack access to a disposal facility for Class B and C waste.¹⁶⁶ In the first of these rulings, the board stated that, “[e]ven assuming arguendo that Dominion might someday require a permit under Part 61 for a disposal facility, that issue is too speculative at present and is therefore not ‘material to the findings the NRC must make to support the action that is involved in’ the present proceeding.”¹⁶⁷ The Commission recently affirmed the other ruling dismissing this portion of an equivalent contention, stating that “Part 61 is inapplicable here because it applies only to land disposal facilities that *receive* waste from others, not to onsite facilities such as Bellefonte’s where the licensee intends to *store* its own low-level radioactive waste.”¹⁶⁸ The Commission’s resolution of the issue is controlling here.

¹⁶⁴ Petitioners do not argue that Applicant lacks an offsite disposal facility for Class A waste. Therefore, that class of waste is also not at issue here. We further note that liquid and gaseous wastes, after treatment to reduce activity, are disposed of to the Chesapeake Bay (liquid waste) or to the atmosphere (gaseous waste). ER §§ 3.5.2.1, 3.5.3.2. Therefore, the management of those wastes would not appear to be impacted by the partial closure of the Barnwell facility. Our analysis therefore proceeds on the understanding that the partial closure of Barnwell impacts Class B and C solid wastes from the Calvert Cliffs reactors.

¹⁶⁵ 42 U.S.C. § 2021c(b)(1)(D). See *Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 313 n.86 (2008).

¹⁶⁶ *North Anna*, LBP-08-15, 68 NRC at 316-18; *Bellefonte*, LBP-08-16, 68 NRC at 414.

¹⁶⁷ *North Anna*, LBP-08-15, 68 NRC at 317 (quoting 10 C.F.R. § 2.309(f)(1)(iv)).

¹⁶⁸ *Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 73 (2009).

Joint Petitioners' allegation that the decommissioning cost estimate is inadequate suffers from much the same defect as its argument that Applicant must obtain a waste disposal permit. Joint Petitioners allege that Application provides "no recognition of the increased costs that may be associated with disposal of a cumulative total LLRW from operations in addition to the LLRW generated by dismantling the facility." Pet. at 51. In other words, Joint Petitioners insist that not only should Applicant obtain a permit to dispose of LLRW from operations onsite, it should also include in its estimate of decommissioning costs the cost of such permanent disposal. Unlike the need for extended onsite storage, which represents a more plausible and imminent concern, arguments premised on the prediction that someday the Calvert Cliffs site will become a permanent disposal facility for LLRW from operations are "too speculative at present and . . . therefore not 'material to the findings the NRC must make to support the action that is involved in' the present proceeding."¹⁶⁹

Conflict with Table S-3

We also agree with NRC Staff that we may not admit any aspect of Contention #7 that challenges Table S-3 of 10 C.F.R. § 51.51. Even if Joint Petitioners have correctly interpreted the Supreme Court's holding in *Marsh v. Oregon Natural Resources Council*, the Commission has recently held that a licensing board may not admit a contention that directly or indirectly challenges Table S-3, and we are bound by that ruling.¹⁷⁰

The question remains, however, whether any aspect of Contention #7 may be admitted without creating a conflict with the regulation. Although we are not required to narrow contentions to make them acceptable, we may do so.¹⁷¹ We will therefore review the purpose of Table S-3 to determine whether Contention #7 may be narrowed to avoid conflict with the regulation.

The Supreme Court explained the function of Table S-3 as follows:

The environmental impact of operating a light-water nuclear power plant includes the effects of offsite activities necessary to provide fuel for the plant ("front end" activities), and of offsite activities necessary to dispose of the highly toxic and long-lived nuclear wastes generated by the plant ("back end" activities). The dispute in these cases concerns the Commission's adoption of a series of generic rules to evaluate the environmental effects of a nuclear power plant's fuel cycle. At the heart of each rule is Table S-3, a numerical compilation of the estimated

¹⁶⁹ *North Anna*, LBP-08-15, 68 NRC at 317 (quoting 10 C.F.R. § 2.309(f)(1)(iv)).

¹⁷⁰ *Bellefonte*, CLI-09-3, 69 NRC at 75.

¹⁷¹ *Pennsylvania Power & Light Co.* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-79-6, 9 NRC 291, 295-96 (1979).

resources used and effluents released by fuel cycle activities supporting a year's operation of a typical light-water reactor.¹⁷²

The Court further noted:

For example, the tabulated impacts include the acres of land committed to fuel cycle activities, the amount of water discharged by such activities, fossil fuel consumption, and chemical and radiological effluents (measured in curies), all normalized to the annual fuel requirement for a model 1000 megawatt light- water reactor.¹⁷³

One component of the fuel cycle is the disposal of LLRW. The Commission has noted that “Table S-3 assumes that solid, low-level waste from reactors will be disposed of through shallow land burial, and concludes that this kind of disposal will not result in the release of any ‘significant effluent to the environment.’”¹⁷⁴ We may not admit a contention which challenges that assumption or conclusion. But the Commission also stated, “we do not rule out that, in a future COL proceeding, a petitioner could proffer an *application-specific* contention suitable for litigation on the subject of *onsite storage* of low-level radioactive waste.”¹⁷⁵ The Commission further concluded that “[t]he questions of the safety and environmental impacts of onsite low-level waste *storage* are, in our view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions.”¹⁷⁶ Furthermore, the Commission observed that, even if it had chosen to promulgate a “low-level waste confidence” rule, such a rule would not, if it followed the pattern of the high-level waste confidence rule, “alter any requirements to consider in the adjudicatory proceeding the environmental impacts of waste *storage* during the term of the license.”¹⁷⁷

Also, “Table S-3 does not include health effects from the effluents described in the Table,” and that issue, as well as others specifically noted, “may be the subject of litigation in the individual licensing proceedings.”¹⁷⁸ Both Contention #7 and Ms. D’Arrigo’s Declaration raise concerns about the health effects of extended onsite storage of LLRW. Because the health effects of disposal of

¹⁷² *Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 90-91 (1983) (footnotes omitted).

¹⁷³ *Id.* at 91 n.5.

¹⁷⁴ *Bellefonte*, CLI-09-3, 69 NRC at 75 n.30.

¹⁷⁵ *Id.* at 77 n.42 (emphasis added).

¹⁷⁶ *Id.* at 76-77 (emphasis in original).

¹⁷⁷ *Id.* at 77 (emphasis added).

¹⁷⁸ 10 C.F.R. § 51.51(b), n.1 to Table S-3.

LLRW may be litigated in individual licensing proceedings, the health effects of extended onsite storage may be litigated as well.

We therefore conclude that we may, without creating a conflict with Table S-3, admit an application-specific contention concerning the environmental consequences of the need for extended onsite *storage* of LLRW as the result of the closure of the Barnwell facility, assuming that contention satisfies the requirements of 10 C.F.R. § 2.309(f)(1). Contention #7, as we have described it above, raises such an issue, although it also raises other issues described above that we cannot admit. The Board has therefore narrowed Contention #7 as follows:

The ER for CCNPP-3 is deficient in discussing its plans for management of Class B and C wastes. In light of the current lack of a licensed offsite disposal facility, and the uncertainty of whether a new disposal facility will become available during the license term, the ER must either describe how Applicant will store Class B and C wastes onsite and the environmental consequences of extended onsite storage, or show that Applicant will be able to avoid the need for extended onsite storage by transferring its Class B and C wastes to another facility licensed for the storage of LLRW.

This narrowed contention is limited to the ER's failure to address the need for, and the environmental consequences of, long-term storage of Class B and C waste at the Calvert Cliffs site, or that long-term storage will not be necessary. The narrowed contention is site- and design-specific and concerns only extended onsite storage, not permanent disposal, of Class B and C wastes. It challenges neither the assumption of Table S-3 that low-level waste from reactors will eventually be disposed of through shallow land burial, nor the Table's conclusion that this kind of disposal will not result in the release of any significant effluent to the environment. Joint Petitioners agreed that a contention of this nature would address their site-specific concerns without creating a conflict with Table S-3. Hrg. Tr. at 129-30. Applicant did not claim that a contention focused on site-specific or design-specific issues would conflict with Table S-3, *id.* at 130-32, although it has various other objections to the contention that we address below. The Board concludes that this contention, as we have narrowed it, is not a challenge to Table S-3.¹⁷⁹

Analysis of Narrowed Contention #7 Under 10 C.F.R. § 2.309(f)(1)

The Board has examined the contention admissibility standards of 10 C.F.R. § 2.309(f)(1) and finds that this narrowed contention satisfies those requirements.

¹⁷⁹ During oral argument, we discussed with the participants a narrowed contention similar to the one we now admit. Hrg. Tr. at 126-41.

Contention #7 is a “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.’”¹⁸⁰ In the recent *North Anna* decision, the Board found that a similar contention satisfied the requirement to provide a specific statement of the legal or factual issue sought to be raised by alleging, in relevant part, that the applicant’s environmental report should have examined the environmental consequences of long-term storage of LLRW at the North Anna site.¹⁸¹ The requirement of section 2.309(f)(1)(i) is met here as well because the contention adequately describes the information that should have been included in the ER.

Joint Petitioners have also provided a brief explanation of the basis of Contention #7. They explain that the ER incorrectly assumes that a permanent LLRW disposal facility exists, that in the absence of such a disposal facility LLRW is likely to remain onsite for an extended period, and that the ER fails to explain the environmental and public health consequences of extended onsite storage. Joint Petitioners have adequately identified the legal basis of the contention by alleging that such disclosure is required by NEPA (and implicitly by the NRC’s NEPA regulations, 10 C.F.R. Part 51). Pet. at 50. Accordingly, Joint Petitioners have satisfied the requirements of 10 C.F.R. § 2.309(f)(1)(ii).¹⁸²

Contention #7 is within the scope of this proceeding, as required by section 2.309(f)(1)(iii). The Notice of Hearing and Opportunity to Petition for Leave to Intervene for this proceeding¹⁸³ explained that the Licensing Board would consider the Application under Part 52 for a COL for CCNPP-3. Contention #7 challenges the legal sufficiency of the ER included in the Application and is therefore within the scope of the proceeding.¹⁸⁴

Contention #7 is material to compliance with NEPA and the NRC’s regulations implementing NEPA, and it therefore satisfies the requirement of section 2.309(f)(1)(iv).¹⁸⁵ The environmental report prepared for a COL application must describe the proposed action and discuss, among other things, “[t]he impact of the proposed action on the environment,” “[a]ny adverse environmental effects which cannot be avoided should the proposal be implemented,” and “[a]ny irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.”¹⁸⁶ The information submitted in the ER pursuant to these requirements “should not be confined

¹⁸⁰ *North Anna*, LBP-08-15, 68 NRC at 313-14 (quoting *Pa’ina*, LBP-06-12, 63 NRC at 413).

¹⁸¹ *Id.* (citing *Pa’ina*, LBP-06-12, 63 NRC at 413).

¹⁸² See *North Anna*, LBP-08-15, 68 NRC at 314-15; *Pa’ina*, LBP-06-12, 63 NRC at 414.

¹⁸³ See 73 Fed. Reg. 55,876 (Sept. 26, 2008).

¹⁸⁴ See *North Anna*, LBP-08-15, 68 NRC at 315; *Pa’ina*, LBP-06-12, 63 NRC at 414.

¹⁸⁵ See 10 C.F.R. Part 51.

¹⁸⁶ 10 C.F.R. § 51.45(b)(1), (2), (5).

to information supporting the proposed action but should also include adverse information.’’¹⁸⁷ Contention #7 alleges omissions from the analysis required by 10 C.F.R. § 51.45(b) and (e) and NEPA. In substance, it alleges that the discussion of LLRW management in the ER does not reflect current conditions but rather those that existed prior to the partial closure of the Barnwell facility, and therefore the ER fails to accurately describe the proposed action and its impact on the environment. Accordingly, it is material to the ER’s compliance with the NRC’s regulations, and ultimately to the agency’s compliance with NEPA.

For a contention of omission, the petitioner’s burden is to show the facts necessary to establish that the application omits information that should have been included. Joint Petitioners have met their burden to show that the ER omits information necessary to assess the environmental consequences of the proposed new reactor in light of the closure of the Barnwell facility. Neither Applicant nor NRC Staff disputes that the Calvert Cliffs nuclear power reactors (the two existing reactors and the proposed CCNPP-3) currently lack a permanent disposal facility for the Class B or C wastes they generate. As the Commission recently observed regarding a COL application from the Tennessee Valley Authority (TVA), an applicant that also lacks access to the Barnwell facility, “this closure would preclude TVA from disposing its low-level waste at Barnwell and would force TVA to store that waste onsite instead — at least until another low-level waste disposal facility agrees to accept such waste from Alabama nuclear facilities.”¹⁸⁸ Similarly, Class B and C wastes from the Calvert Cliffs reactors will have to be managed onsite if neither an alternative disposal site nor an offsite interim storage facility is available during the license term.¹⁸⁹ Furthermore, the Commission “has acknowledged that the future availability of disposal capacity for low-level radioactive waste remains highly uncertain.”¹⁹⁰

The ER, however, fails to acknowledge the closure of the Barnwell facility to Class B and C waste from Calvert Cliffs, much less explain how Applicant intends to manage LLRW from CCNPP-3 in the absence of an offsite disposal facility. Ms. D’Arrigo states in her Declaration that the COLA “provides no detail regarding the ongoing site management and potential impact for all the [Class B and C] radioactive waste from operations on the site of generation.” D’Arrigo Decl. ¶ 10. She stresses that the ER should contain a detailed analysis of the plans for and consequences of extended onsite management of LLRW. She states that “[s]ome so-called ‘low-level’ radioactive waste can give high doses of radiation

¹⁸⁷ 10 C.F.R. § 51.45(e).

¹⁸⁸ *Bellefonte*, CLI-09-3, 69 NRC at 71.

¹⁸⁹ The Applicant requests a license that “shall expire 40 years from the date upon which the NRC makes a finding that acceptance criteria are met under 10 CFR 50.103(g) . . . or allowing operation during an interim period under 10 CFR 52.103(c).” COLA, Part I: General Information, § 1.1.4.

¹⁹⁰ *Bellefonte*, CLI-09-3, 69 NRC at 76.

if one is exposed unshielded.’’ D’Arrigo Decl. ¶9. The COLA assumes that offsite disposal facilities will be available to receive the full range of radioactive waste generated at Calvert Cliffs, but in Ms. D’Arrigo’s opinion, ‘‘[c]onsidering the long history of failed so-called ‘low-level’ radioactive waste disposal sites in the country, assumptions that new ones will be available are not justified.’’ *Id.* ¶13.

For the reasons previously stated, the omitted information is material to the ER’s compliance with 10 C.F.R. § 51.45(b) and (e), and to the agency’s compliance with NEPA. Joint Petitioners need not show that Applicant is incapable of providing long-term storage for LLRW in compliance with NRC regulations. It is sufficient that Joint Petitioners have shown that the ER omits the information necessary to demonstrate that capability. Accordingly, Contention #7 has sufficient factual support, as required by 10 C.F.R. § 2.309(f)(1)(v).

Under section 2.309(f)(1)(vi), when an application is alleged to be deficient, the petitioner must identify the deficiencies and provide supporting reasons for its position that such information is required. For the reasons already explained, Joint Petitioners have adequately identified the deficiencies and explained why further information is required concerning the Applicant’s plans for management of Class B and C wastes. Joint Petitioners therefore have established a genuine dispute with the Applicant on a material issue.

Applicant’s Argument That the Information Sought by Joint Petitioners Is Either Unnecessary or Already Contained in the ER

Applicant challenges Joint Petitioners’ assumption that ‘‘the lack of a licensed disposal site for Class B and C wastes necessarily means that the waste will remain onsite indefinitely.’’ App. Ans. at 63-64 (citing Pet. at 50). Applicant notes that, under 10 C.F.R. § 20.2001, ‘‘a power reactor licensee could transfer the material to another licensee that is licensed to accept and treat waste prior to disposal.’’ *Id.* at 64. Therefore, according to Applicant, there is a ‘‘clear disposition path’’ for its Class B and C wastes even without access to the Barnwell facility. *Id.* Applicant thus reasons it need not address the impact of the partial closure of Barnwell in the ER. We disagree.

In substance, Applicant argues that it can mitigate the adverse consequences of the lack of a disposal site by shipping its Class B and C wastes to another licensee. If that is Applicant’s plan, it should have been disclosed in the ER. As the Supreme Court made clear in *Robertson v. Methow Valley Citizens Council*, NEPA requires that an EIS disclose mitigation measures:

[O]ne important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences. The requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the

language of [NEPA] and, more expressly, from CEQ's implementing regulations. Implicit in NEPA's demand that an agency prepare a detailed statement on "any adverse environmental effects which cannot be avoided should the proposal be implemented," 42 U.S.C. § 4332(C)(ii), is an understanding that the EIS will discuss the extent to which adverse effects can be avoided. . . . More generally, omission of a reasonably complete discussion of possible mitigation measures would undermine the "action-forcing" function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects.¹⁹¹

NEPA also requires that agencies take a "hard look" at the environmental effects of their planned action, and that an EIS be updated to reflect new information that is relevant to the environmental consequences of the proposed action.¹⁹²

Of course, NEPA compliance is ultimately the responsibility of the NRC, not the applicant. However, the Commission has made clear that petitioners must raise NEPA contentions in response to the ER, rather than await the agency's draft environmental impact statement (DES):

[T]he adequacy of the NRC's environmental review as reflected in the adequacy of a DES or FES is an appropriate issue for litigation in a licensing proceeding. Because the adequacy of those documents cannot be determined before they are prepared, contentions regarding their adequacy cannot be expected to be proffered at an earlier stage of the proceeding before the documents are available. But this does not mean that no environmental contentions can be formulated before the staff issues a DES or FES. While all environmental contentions may, in a general sense, ultimately be challenges to the NRC's compliance with NEPA, factual aspects of particular issues can be raised before the DES is prepared. As a practical matter, much of the information in an Applicant's ER is used in the DES. Just as the submission of a safety-related contention based on the FSAR is not to be deferred because the staff may issue an SER requiring a change in a safety matter, so too, the Commission expects that the filing of an environmental concern based on the ER will not be deferred because the staff may provide a different analysis in its DES. Should that circumstance transpire, there will be ample opportunity to either amend or dispose of the contention.¹⁹³

Moreover, the NRC regulation listing the information that must be included in

¹⁹¹ 490 U.S. 332, 351-52 (1989) (citations and footnotes omitted).

¹⁹² See *Marsh*, 490 U.S. at 374. *Marsh* involved new information that became available after the agency's decision had been made, but before the project had been completed. There can be even less doubt that new information that becomes available before the agency decision (here, the issuance of the license) must be included in the NEPA analysis.

¹⁹³ *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983).

the ER restates essential NEPA requirements.¹⁹⁴ In particular, the mandate of 10 C.F.R. § 51.45(b)(2) that the ER disclose “any adverse environmental effects which cannot be avoided should the proposal be implemented” duplicates the identical NEPA requirement that the Supreme Court in *Methow Valley* construed to require “a detailed discussion of possible mitigation measures” in an EIS.¹⁹⁵ This implies that the ER must also contain such a detailed discussion.

The ER fails to satisfy that requirement. If Applicant intends to send the Class B and C wastes that previously went to Barnwell to a licensed offsite facility for long-term storage, the ER fails to describe such a plan. On the contrary, in the few instances where the ER mentions shipping LLRW offsite prior to disposal, it is usually in the context of processing prior to shipment to a disposal facility. For example, the ER states that dry active waste “may be shipped in the ‘as collected’ form to an offsite licensed processor for volume reduction treatment and final packaging and shipment to a disposal facility.” ER § 3.5.4. The ER also refers to “[s]olid low level waste . . . shipped offsite for processing and disposal.” ER § 3.8.3. Merely describing a practice of sending LLRW to a processor when a disposal facility was available is an entirely different matter from a plan to send LLRW to another licensee for long-term storage when a disposal facility no longer exists. The ER fails to describe such a plan or to identify an offsite licensee that has agreed to accept Applicant’s Class B and C wastes even though there is no longer a disposal facility to which the licensee can send the wastes. Thus, the ER omits “a reasonably complete discussion of possible mitigation measures.”¹⁹⁶

The narrowed Contention #7, however, does permit Applicant to demonstrate that it has a feasible plan under which another licensed facility will receive the Class B and C wastes generated by CCNPP-3 during the license term. At present, however, the ER falls short of the requirements of 10 C.F.R. § 51.45(b) and (e) and NEPA.¹⁹⁷

Applicant also claims that “the application clearly addresses both the plan for handling LLRW onsite and the environmental impacts of storing such waste.” App. Ans. at 64. On the contrary, the ER contains no plan for extended onsite storage of LLRW in the absence of a disposal site, nor does it examine the environmental impacts of such long-term storage. Rather, storage capacity is

¹⁹⁴ Compare 10 C.F.R. § 51.45(b) with 42 U.S.C. § 4332(C).

¹⁹⁵ *Methow Valley*, 490 U.S. at 351 (construing 42 U.S.C. § 4332(C)(ii)).

¹⁹⁶ *Id.* at 352.

¹⁹⁷ In its Answer to the Petition, Applicant states that “Studsvik,” which operates a facility in Erwin, Tennessee, plans to treat and assume responsibility for storage and final disposal of Class B and C wastes. Applicant further reports that the Constellation Energy Group has signed a contract with Studsvik for such services. App. Ans. at 64 n.44. An adequate plan to transfer LLRW to Studsvik might resolve the issue presented by Contention #7. For the reasons explained in the text, however, Applicant’s plan must be provided in the ER, not in a litigation document.

discussed in the context of the capacity to handle LLRW prior to shipment to an offsite disposal facility. For example, the ER states, in section 3.5, that “[s]olid radioactive wastes are collected and packaged for temporary storage, shipment and offsite disposal.” The ER further explains:

Once treated, the solid waste, along with treated concentrates, is stored in one of two areas. One area is a tubular shaft storage area for the high activity drums and the other is a temporary storage area for low to medium activity drums. Once the activity has reduced to a low enough level, the drums are transported to an offsite repository for final disposal.¹⁹⁸

The ER fails to demonstrate adequate storage capability in the absence of the “offsite repository for final disposal.”¹⁹⁹ The FSAR reports that Applicant has “the capacity to store several years’ volume of solid waste (excluding dry active waste) resulting from plant operation.”²⁰⁰ A plan for the long-term storage of LLRW must provide for much more than “several years’ volume of solid waste.”²⁰¹ It must demonstrate that Applicant will be able to store onsite the volume of LLRW that will be generated during the license term. The ER contains no such demonstration.

Also, if Applicant’s plan is to store its Class B and C wastes onsite, it must analyze in the ER the environmental consequences of such extended onsite storage. Contrary to Applicant’s argument, App. Ans. at 64-66, that analysis is not in the ER. Although the ER discusses to some extent environmental consequences of its present onsite LLRW management system, nowhere is there any indication that need for extended onsite storage because of the partial closure of the Barnwell facility was part of the analysis. On the contrary, the ER assumes that an offsite disposal facility for LLRW is available.²⁰² Thus, the ER assumes a shorter period of onsite storage than will be necessary absent an offsite disposal facility, and a smaller volume of LLRW that will require storage. This outdated analysis does not comply with 10 C.F.R. § 51.45(b) and (e) or NEPA.

Finally, we note that another licensing board recently admitted a safety contention based on the applicant’s lack of a definite plan for LLRW management in light of the partial closure of the Barnwell facility.²⁰³ In that case, unlike this one, the application did at least refer to a “concept” for managing LLRW onsite absent

¹⁹⁸ ER § 3.5.4.

¹⁹⁹ *Id.*

²⁰⁰ EPR FSAR § 11.4.1.2.1.

²⁰¹ *Id.*

²⁰² See ER §§ 3.5, 3.5.4, 3.5.4.1, Figure 3.5-8.

²⁰³ *Southern Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3 and 4), LBP-09-3, 69 NRC 139 (2009).

a permanent disposal facility. The board nevertheless admitted the contention, explaining:

None of this detail is included or explicitly referenced in the FSAR of the Vogtle Units 3 and 4 COLA. . . . And the single sentence in the FSAR referring to the "planned VEGP Units 1 and 2 Low Level Radwaste Storage Facility," without more, would not seem to provide the level of detail necessary to determine whether SNC's plan for handling LLRW from proposed Vogtle Units 3 and 4 in the absence of an offsite disposal facility would comply with 10 C.F.R. Part 20 limits. Moreover, . . . the discussion and analysis in both documents make it clear that what is being considered is no more than a "concept" that lacks SNC adoption as an actual plan for longer-term LLRW storage for the proposed Vogtle units. Thus, Joint Petitioners raise a genuine dispute as to whether information on SNC's extended LLRW storage plan that should have been included has been omitted from the COLA for Vogtle Units 3 and 4.²⁰⁴

Similarly, in the present case the ER does not include a plan for the management of Class B and C wastes in the absence of an offsite disposal facility, much less analyze any impact the plan may have on the Calvert Cliffs site. Instead, the ER's plan for LLRW management presumes that an offsite disposal facility remains available. Joint Petitioners have therefore made a sufficient showing that the ER fails to contain the information concerning the proposed action and its environmental consequences required by 10 C.F.R. § 51.45(b) and (e) and NEPA.

We *admit* Contention #7 as we have narrowed it because it meets the admissibility criteria of 10 C.F.R. § 2.309(f)(1) and does not conflict with NRC regulations.

VI. CONCLUSION AND ORDER

Based, therefore, upon the preceding findings and rulings, it is, this 24th day of March 2009, ORDERED as follows:

A. Joint Petitioners Nuclear Information and Resource Service, Beyond Nuclear, Public Citizen Energy Program, and Southern Maryland Citizens' Alliance for Renewable Energy Solutions are admitted as parties in this proceeding and their Request for Hearing and Petition to Intervene are granted. A hearing is granted with respect to their Contention #1 as pleaded and Contention #7 as narrowed by the Board. Joint Petitioners' Contention #2 is admitted in part and denied in part, as set forth herein. Joint Petitioners' Contentions #3, #4, #5, and #6 are not admitted.

²⁰⁴ *Id.* at 164.

B. The Board considers that Contention #2 raises a legitimate issue of law regarding the proper timing for the applicant to submit the financial tests for parent company guarantees. The Board is of the opinion that it is in the best interest of the management of this proceeding that this issue be segregated from the other contentions and briefed immediately. Accordingly, Joint Petitioners, Applicant, and NRC Staff are to file briefs that include, but need not be limited to, any established relevant Staff review processes, Commission intentions regarding timing of proofs and existing regulations supporting either option. Shortly after issuance of this Order, the Board will convene a telephone conference to discuss the time frame in which these briefs should be submitted.

C. 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 BOARD²⁰⁵

Ronald M. Spritzer, Chairman
ADMINISTRATIVE JUDGE

Dr. Gary S. Arnold
ADMINISTRATIVE JUDGE

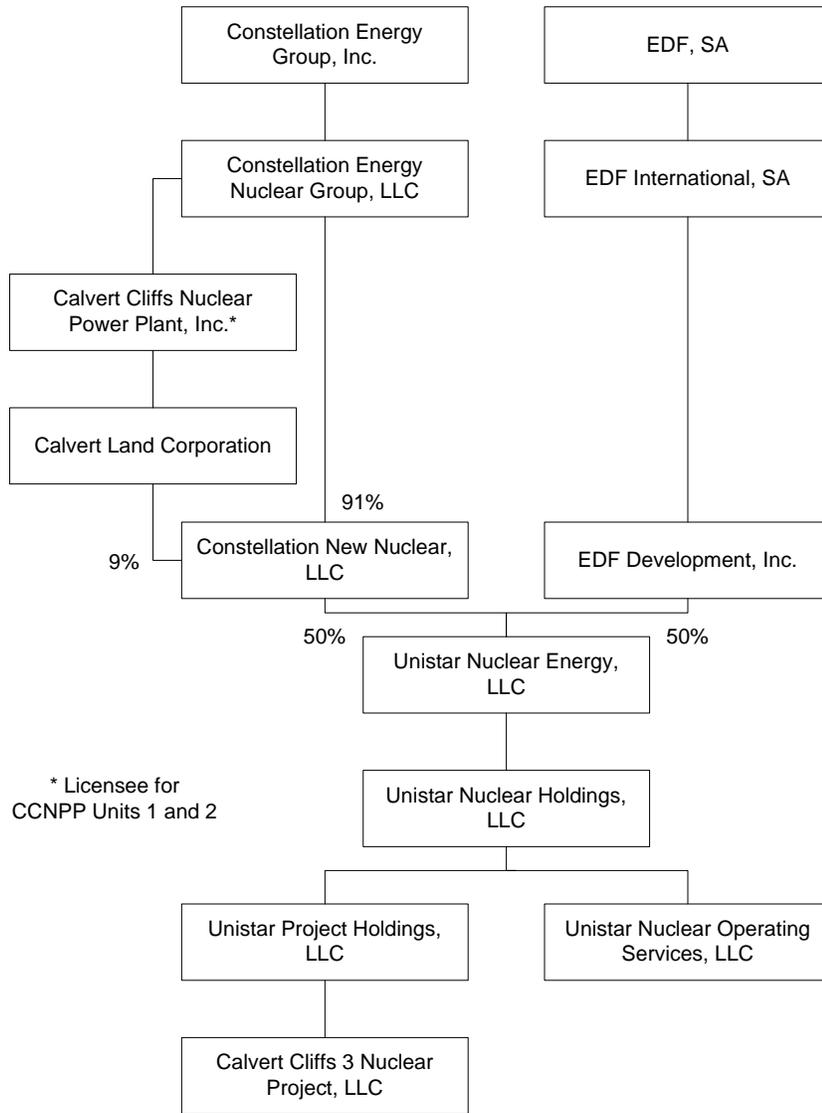
Dr. William W. Sager
ADMINISTRATIVE JUDGE

Rockville, Maryland
March 24, 2009

²⁰⁵ Copies of this Order were sent this date by the agency's E-Filing system to the counsel/representatives for: (1) Joint Petitioners Nuclear Information and Resource Service, Beyond Nuclear, Public Citizen Energy Program, and Southern Maryland Citizens' Alliance for Renewable Energy Solutions; (2) UniStar Nuclear Operating Services, LLC and Calvert Cliffs-3 Nuclear Project, LLC; (3) NRC Staff; and (4) State of Maryland.

ATTACHMENT A

Organizational Structure



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Dale E. Klein, Chairman
Gregory B. Jaczko
Peter B. Lyons
Kristine L. Svinicki

In the Matter of

**Docket No. 50-219-LR
(License Renewal)**

**AMERGEN ENERGY COMPANY, LLC¹
(Oyster Creek Nuclear Generating
Station)**

April 1, 2009

RULES OF PROCEDURE: PETITIONS FOR REVIEW

Under the Commission's rules, the granting of petitions for review is discretionary, given due weight to the existence of a substantial question with respect to the five considerations listed in 10 C.F.R. § 2.341(b)(4).

¹ Applicant AmerGen Energy Company (AmerGen) merged into its parent, Exelon Generation Company, LLC (Exelon), and ceased to exist as a separate entity on January 8, 2009. The operating license for the Oyster Creek Nuclear Generating Station was amended to reflect the transfer of the operating license to Exelon on that date. *See* Letter to Mr. Charles G. Pardee, Chief Nuclear Officer, AmerGen Energy Company, LLC from Christopher Gratton, Senior Project Manager, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation, Subject: Clinton Power Station, Unit 1; Oyster Creek Nuclear Generating Station; and Three Mile Island Nuclear Generating Station, Unit 1 — Issuance of Conforming Amendments Re: Direct Transfer of Facility Operating License to Exelon Generation Company, LLC (TAC Nos. MD9012, MD9013, and MD9014) (with enclosures), available at ADAMS Accession No. ML082770568. For purposes of convenience and ease of reference to prior decisions and pleadings, we generally refer to the Applicant as "AmerGen" in today's decision.

LICENSING BOARD: AUTHORITY

Under the Commission’s adjudicatory scheme, the licensing board’s chief function is carefully to review all of the evidence, including testimony and exhibits, and to resolve any factual disputes.

LICENSING BOARD: FINDINGS OF FACT, STANDARD OF REVIEW

While the Commission has authority to make *de novo* findings of fact, it does not do so “where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact.” The Commission’s “standard of ‘clear error’ for overturning a board’s factual finding is quite high,” and the Commission defers to its boards’ findings unless “clearly erroneous” — that is, “not even plausible in light of the record viewed in its entirety.” “[U]nless there is a strong reason to believe that in a particular case a board has overlooked or misunderstood important evidence, we will defer to its findings of fact.” “As for conclusions of law, our standard of review is more searching. We will review legal questions *de novo*. We will reverse a licensing board’s legal rulings if they are ‘a departure from or contrary to established law.’”

CONTENTIONS: ADMISSIBILITY, STANDARD OF REVIEW

The Commission’s contention admissibility “requirements are deliberately strict, and we will give ‘substantial deference’ to our boards’ determinations on threshold issues, such as standing and contention admissibility,” and we will affirm “decisions on the admissibility of contentions where the appellant ‘points to no error of law or abuse of discretion.’”

LICENSING BOARD: AUTHORITY

CONTENTIONS: ADMISSIBILITY, BURDEN OF PROOF

While a board may view a petitioner’s supporting information in a light favorable to the petitioner, it cannot do so by ignoring our contention admissibility rules, which require the petitioner (not the board) to supply all of the required elements for a valid intervention petition (*see* 10 C.F.R. § 2.309(f)(1)). A board may not simply infer the bases for a contention. Failing to provide information required under 10 C.F.R. § 2.309(f)(1) bars admission of the contention.

CONTENTIONS: UNTIMELY, LATE-FILED

The Commission's "requirements for untimely filings (10 C.F.R. § 2.309(c)) and late-filed contentions (10 C.F.R. § 2.309(f)(2))" are "stringent." "Section 2.309(c)(2) clearly provides that a petitioner 'shall address' all eight factors set forth in section 2.309(c)(1)... [F]ailure to comply with our pleading requirements for late filings constitutes sufficient grounds for rejecting intervention and hearing requests." Decisions on nontimely filings require a balancing of the eight factors set forth in section 2.309(c)(1), the first of which, good cause for failure to file on time, is the most important.

CONTENTIONS: NEW, AMENDED

New or amended contentions may be filed only with leave of the presiding officer upon a showing that satisfies the three criteria set out in 10 C.F.R. § 2.309(f)(2).

RULES OF PROCEDURE: REPLY BRIEFS

"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)." And, even if the late-filed contention criteria are satisfied, proposed contentions still must meet the threshold admissibility standards contained in 10 C.F.R. § 2.309(f)(1).

REASONABLE ASSURANCE

"Reasonable assurance" is not quantified as equivalent to a 95% (or any other percent) confidence level, but is based on sound technical judgment of the particulars of a case and on compliance with the Commission's regulations. As the Board stated, our applicable regulations, 10 C.F.R. §§ 54.21 and 54.29, read together, "require AmerGen to establish an aging management program that provides 'reasonable assurance' that the Oyster Creek drywell shell will continue to perform its intended function consistent with the [current licensing basis] during the period of extended operation." To satisfy this "reasonable assurance" standard, AmerGen must make a showing that meets the "preponderance of the evidence" threshold of compliance with the applicable regulations — *not* a 95% confidence level of compliance.

BURDEN OF PROOF

In the Commission's adjudications, "[t]he ultimate burden of proof on the

question of whether the permit or the license should be issued is . . . upon the applicant. But where . . . one of the other parties contends that, for a specific reason . . . the permit or license should be denied, that party has the *burden of going forward* with evidence to buttress that contention. Once he has introduced sufficient evidence to establish a *prima facie* case, the burden then shifts to the applicant who, as part of his overall burden of proof, must provide sufficient rebuttal to satisfy the Board that it should reject the contention as a basis for denial of the permit or license.’’

CONTENTIONS: ADMISSIBILITY, TIMELINESS

The Commission’s contention admissibility and timeliness rules require a high level of discipline and preparation by petitioners, “who must examine the publicly available material and set forth their claims and the support for their claims at the outset.” “There simply would be ‘no end to NRC licensing proceedings if petitioners could disregard our timeliness requirements’” and add new contentions at their convenience during the course of a proceeding based on information that could have formed the basis for a timely contention at the outset of the proceeding. Our expanding adjudicatory docket makes it critically important that parties comply with our pleading requirements and that the Board enforce those requirements.

RULES OF PROCEDURE: REPLY BRIEFS

Petitioners may not raise entirely new arguments in a reply brief unless the standards for late-filed contentions are met. And even if those standards are satisfied, support for a contention must be provided when a contention is filed, not at some later date.

SELECTION OF HEARING PROCEDURES; SUBPART G PROCEDURES

The requirements for applying Subpart G to a particular proceeding are set out in 10 C.F.R. § 2.700. The rule explicitly applies to *eyewitnesses*, not *expert witnesses*. The credibility of a witness testifying based on technical expertise is not the same as the credibility of an eyewitness to a past event.

SELECTION OF HEARING PROCEDURES, APPEALS

The Commission’s rules, in 10 C.F.R. § 2.311(d), set a *ten*-day limit for appealing the selection of a particular hearing procedure. An appeal cannot wait until a board issues a decision on the merits of a contention.

CONTENTIONS: ADMISSIBILITY, LATE-FILED

New information concerning safety may be new “evidence,” but not necessarily raise a new “issue.” A new “issue” is raised “only when *the argument itself (as distinct from its chances of success) was not apparent at the time of the application.*”

PETITION FOR REVIEW, ISSUANCE OF RENEWED LICENSE

A petition for review does not automatically prevent issuance of a renewed operating license (*see* 10 C.F.R. §§ 2.340(a) and 54.31(c)). In uncontested operating license renewal proceedings, the NRC Staff is authorized to issue a renewed license once the Director of the Office of Nuclear Reactor Regulation has made the appropriate findings. When a proceeding is contested, the Staff, as a matter of policy, seeks Commission approval to issue the license, even though issuance of the license is not stayed by the petition for review.

RULES OF PROCEDURE: MOTIONS TO REOPEN; MOTIONS TO REOPEN, BURDEN OF PROOF

Motions to reopen are governed by 10 C.F.R. § 2.326, which requires satisfaction of three listed criteria (§ 2.326(a)) and also requires that the motion be accompanied by an affidavit that meets certain specific requirements (§ 2.326(b)). “The burden of satisfying the reopening requirements is a heavy one,” and “proponents of a reopening motion bear the burden of meeting all of [these] requirements.” “Section 2.326(b) requires motions to reopen to be accompanied by affidavits of qualified experts presenting the factual and/or technical bases for the claim that there is a significant safety issue, together with evidence that satisfies our admissibility standards. A ‘mere showing’ of a possible violation is not enough.” The affidavit must contain specific factual and/or technical bases for the movant’s argument that the three criteria of subpart (a) are satisfied. Expert affidavits must be presented by competent individuals with knowledge of the facts alleged or by experts in the appropriate disciplines and the evidence must meet our admissibility standards.

MEMORANDUM AND ORDER

Nuclear Information and Resource Service, 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 (collectively, Citizens) have petitioned for Commission review of the Initial Decision of the Atomic Safety and Licensing Board, as well as “the many interlocutory decisions in this proceeding.”² In its decision, LBP-07-17,³ the Board rejected Citizens’ challenge to the renewal of AmerGen’s operating license for its Oyster Creek Nuclear Generating Station (Oyster Creek). AmerGen⁴ and the NRC Staff⁵ filed answers opposing the petition for review. Citizens replied to AmerGen’s and the Staff’s filings.⁶

As part of our review of Citizens’ Petition and the Board’s decision in LBP-07-17, in CLI-08-10 we requested additional briefs⁷ on a single limited issue derived from a discussion contained in an “Additional Statement”⁸ appended to LBP-07-17 by Judge Baratta (who joined with his colleagues in the decision). Citizens,⁹ AmerGen,¹⁰ and the NRC Staff¹¹ all filed initial and reply briefs in response to the Commission’s request. We referred the limited issue specified in CLI-08-10 and addressed in these briefs to the Board for resolution.¹² The Board heard oral argument on the issue¹³ and received supplemental briefs after the argument from Citizens,¹⁴ AmerGen,¹⁵ and the NRC Staff.¹⁶ The Board

² Citizens’ Petition for Review of LBP-07-17 and the Interlocutory Decisions in the Oyster Creek Proceeding (Jan. 14, 2008) (Petition). Initially, Petitioners referred to themselves collectively as “NIRS” — for ease of reference we use their later choice, “Citizens,” throughout this decision.

³ 66 NRC 327 (2007).

⁴ AmerGen’s Answer Opposing Citizens’ Petition for Review of LBP-07-17 and the Interlocutory Decisions in the Oyster Creek Proceeding (Jan. 24, 2008) (AmerGen Answer).

⁵ NRC Staff’s Answer to Citizens’ Petition for Review of LBP-07-17 (Jan. 24, 2008) (Staff Answer).

⁶ Citizens’ Consolidated Reply Regarding Petition for Review of LBP-07-17 and the Interlocutory Decisions in the Oyster Creek Proceeding (Jan. 29, 2008) (Citizens’ Reply).

⁷ CLI-08-10, 67 NRC 357 (2008).

⁸ LBP-07-17 at 373 (Additional Statement).

⁹ Citizens’ Response to Commission Order Dated May 28, 2008 (June 11, 2008) (Citizens’ June 11 Brief); Nuclear Information and Resource Service, Jersey Shore Nuclear Watch, Grandmothers, Mothers and More for Energy Safety, New Jersey Public Interest Research Group, New Jersey Sierra Club and New Jersey Environmental Federation (Collectively “Citizens”) Reply to NRC Staff and AmerGen Responses to Commission Order Dated May 28, 2008 (June 18, 2008).

¹⁰ AmerGen’s Initial Brief in Response to CLI-08-10 (June 11, 2008); AmerGen’s Reply to Citizens’ Response to CLI-08-11 (June 18, 2008).

¹¹ NRC Staff’s Brief Responding to the Commission’s Order (June 11, 2008); NRC Staff’s Reply in Response to Citizens’ Response to Commission Order Dated May 28, 2008 (June 18, 2008).

¹² Order (Aug. 21, 2008) (unpublished) (August 21 Order) (ADAMS Accession No. ML082341051).

¹³ See Tr. at 907-1048.

¹⁴ Citizens’ Supplemental Brief Regarding Commission Questions on Structural Analysis and Board Follow Up Questions (Oct. 1, 2008).

¹⁵ AmerGen’s Supplemental Brief Following Oral Argument (Oct. 1, 2008) (AmerGen Oct. 1 Supplemental Brief).

¹⁶ NRC Staff’s Supplemental Brief on Commission-Referred Question (Oct. 1, 2008).

subsequently issued a Memorandum¹⁷ presenting its recommendations to the Commission (Advisory Memorandum), with a “Separate Advisory Opinion of Judge Abramson” (Separate Opinion) appended to it.

For the reasons stated below, and for the reasons given by the Board itself — reinforced by the Board’s analysis in its Advisory Memorandum — we find the Board’s decisions in LBP-07-17 reasonable and decline to disturb them.

I. BACKGROUND

This proceeding arises from AmerGen’s application to renew the operating license for its Oyster Creek plant, due to expire on April 9, 2009, for an additional 20 years.¹⁸ The sole admitted contention relates to the adequacy of AmerGen’s aging management program for the sand bed region of the steel drywell liner (or shell) that encloses the reactor. This drywell liner was the subject of corrective action in the late 1980s and early 1990s after corrosion was discovered in a region of the liner in contact with sand that became dampened when water leaked into the gap between the drywell liner and its surrounding concrete shield wall during refueling outages. At that time, the sand was removed, the corrosion was cleaned up, and a multilayer epoxy sealant was applied to the affected region of the drywell liner. During refueling outages, prior to flooding the reactor cavity, the refueling cavity is now sealed with stainless steel tape and a strippable coating to prevent water from entering the gap between the drywell liner and the concrete shield wall.¹⁹

A. Litigation History

Citizens first attempted to intervene in this proceeding in November 2005, submitting a contention challenging the drywell liner corrosion management program for Oyster Creek’s license extension.²⁰ The Board found that the contention was “overbroad to the extent it challenges AmerGen’s aging management program above the sand bed region” but admitted a narrowed version of the contention.²¹

¹⁷ Memorandum (Addressing [t]he Issue Referred [b]y [t]he Commission Regarding [t]he Adequacy [o]f AmerGen’s Proposed 3-D Finite Element Structural Analysis Studies) (Oct. 29, 2008) (unpublished) (ADAMS Accession No. ML083030436).

¹⁸ LBP-07-17, 66 NRC at 330.

¹⁹ *See id.* at 330-34, for a more detailed description of the drywell shell and corrective actions taken to remedy the corrosion discovered in the late 1980s.

²⁰ Request for Hearing and Petition to Intervene (Nov. 14, 2005), at 3.

²¹ LBP-06-7, 63 NRC 188, 216 (2006).

At the same time, the Board also denied intervention to the State of New Jersey on its proposed contentions.²²

In February 2006, Citizens filed a motion to add contentions or to supplement the basis of the admitted contention.²³ In this motion, Citizens asked that “previously unavailable information”²⁴ regarding problems with monitoring inaccessible areas of the drywell liner, as revealed in a conference call on modifying the Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants (SRP-LRA), NUREG-1800, Rev. 1, and the Generic Aging Lessons Learned (GALL) Report, NUREG-1801, Rev. 1,²⁵ “be added to the basis originally submitted for the initial contention,” or alternatively, that two new contentions be admitted.²⁶ The Board denied Citizens’ motion.²⁷ Essentially, since it had already admitted a contention challenging the adequacy of the program for monitoring corrosion in the sand bed region of the drywell liner, the Board viewed Citizens’ motion as an effort to add a contention extending the monitoring to the regions above and below the sand bed region.²⁸ The Board denied a subsequent motion for reconsideration of this decision.²⁹

Citizens “appealed” the Board decisions. We rejected Citizens’ “appeal,” which, we reasoned, should have been couched as a petition for interlocutory review under 10 C.F.R. § 2.341(f).³⁰ As noted in that decision, Citizens’ appeal did not meet the standards for interlocutory review in any case.³¹

Citizens’ next motion was to apply our Subpart G rules — providing for full-scale adversarial hearings — to this proceeding.³² The Board found that Citizens did not meet the 10 C.F.R. § 2.310(d)³³ standard for a Subpart G hearing. The

²²New Jersey’s contentions are not part of today’s decision.

²³Motion for Leave to Add Contentions or Supplement the Basis of the Current Contention (Feb. 7, 2006).

²⁴*Id.* at 10.

²⁵*See id.*, Exh. B at 11-12.

²⁶*Id.* at 10.

²⁷LBP-06-11, 63 NRC 391 (2006).

²⁸*Id.* at 396 n.4. This Board decision is not challenged directly in the petition for review that we address today.

²⁹Memorandum and Order (Denying NIRS’s Motion for Reconsideration) (April 27, 2006) (unpublished). In denying Citizens’ motion, the Board found that the 10 C.F.R. § 2.323(e) requirements for seeking reconsideration had not been met.

³⁰CLI-06-24, 64 NRC 111 (2006).

³¹*Id.* at 126.

³²Motion to Apply Subpart G Procedures (May 5, 2006).

³³10 C.F.R. § 2.310(d) provides:

In proceedings for the . . . renewal . . . of licenses or permits for nuclear power reactors, where the presiding officer by order finds that resolution of the contention or contested matter

(Continued)

Board found, among other things, that Citizens' general assertion that AmerGen (and its parent company) are not trustworthy did not satisfy the requirement that the contention involve "issues of material fact relating to the occurrence of a past activity, where the credibility of an eyewitness may reasonably be expected to be at issue."³⁴ The Board noted that Citizens did not argue the alternative ground for a Subpart G hearing — that there were "issues of motive or intent of the party or eyewitness material to the resolution of the contested matter" — but found that Citizens would not have prevailed on that argument either.³⁵

In April 2006 AmerGen filed a motion to dismiss Citizens' admitted contention as moot, based on new ultrasonic testing commitments the company made on December 9, 2005 ("to perform a one-time [ultrasonic testing] examination of the sand bed region prior to the period of extended operation") and April 4, 2006 ("to perform additional [ultrasonic testing] examinations in the sand bed region of the drywell *once every ten years during the period of extended operation*").³⁶ The Board found that AmerGen's commitment to perform periodic ultrasonic testing in the sand bed region of the drywell liner during the renewal period rendered Citizens' original contention of omission moot.³⁷ The Board deferred issuing an order dismissing the proceeding, giving Citizens 20 days to file a new contention "raising a specific substantive challenge" to the new periodic ultrasonic testing program.³⁸

Citizens filed a timely petition to add a new contention on June 23, 2006, and also filed a motion for leave to supplement this petition based on another new commitment regarding AmerGen's aging management program.³⁹ This AmerGen commitment was docketed on June 20, 2006, 3 days before the deadline set by the Board for Citizens' new petition. In it, AmerGen committed to "perform an additional set of [ultrasonic testing] measurements during the second refueling outage following the [ultrasonic testing] measurements that will be taken prior to the period of extended operation (i.e., approximately four years after those

necessitates resolution of issues of material fact relating to the occurrence of a past activity, where the credibility of an eyewitness may reasonably be expected to be at issue, and/or issues of motive or intent of the party or eyewitness material to the resolution of the contested matter, the hearing for resolution of that contention or contested matter will be conducted under subpart G of this part.

³⁴ 10 C.F.R. § 2.310(d).

³⁵ Memorandum and Order (Denying NIRS' Motion to Apply Subpart G Procedures) (June 5, 2006) (unpublished) (Subpart G Decision).

³⁶ AmerGen's Motions to Dismiss Drywell Contention as Moot and to Suspend Mandatory Disclosures (April 25, 2006) at 2-3 (emphasis in original).

³⁷ LBP-06-16, 63 NRC 737, 739, 745 (2006).

³⁸ *Id.* at 744.

³⁹ Petition to Add a New Contention (June 23, 2006); Motion for Leave to Supplement the Petition (June 23, 2006).

pre-renewal period measurements).’’⁴⁰ The Board granted the motion, but limited the supplement to new information in AmerGen’s new commitment.⁴¹

Citizens’ new contention, as later supplemented and reworded, read:

AmerGen must provide an aging management plan for the sand bed region of the drywell shell that ensures that safety margins are maintained throughout the term of any extended license, but the proposed plan fails to do so because the acceptance criteria are inadequate, the scheduled [ultrasonic testing] monitoring frequency is too low in the absence of adequate monitoring for moisture and coating integrity and is not sufficiently adaptive to possible future narrowing of the safety margins, the monitoring for moisture and coating integrity is inadequate, the response to wet conditions and coating failure is inadequate, the scope of the [ultrasonic testing] monitoring is insufficient to systematically identify and sufficiently test all the degraded areas of the shell in the sand bed region, the quality assurance for the measurements is inadequate, and the methods proposed to analyze the [ultrasonic testing] results are flawed.⁴²

For analytical convenience, the Board divided the contention into seven discrete challenges (reformulating the second challenge to eliminate overlap with the third challenge):

1. AmerGen’s acceptance criteria are inadequate to ensure adequate safety margins.
2. AmerGen’s scheduled [ultrasonic testing] monitoring frequency in the sand bed region is insufficient to maintain an adequate safety margin.
3. AmerGen’s monitoring in the sand bed region for moisture and coating integrity is inadequate.
4. AmerGen’s response to wet conditions and coating failure in the sand bed region is inadequate.
5. AmerGen’s scope of [ultrasonic testing] monitoring is insufficient to systematically identify and sufficiently test all the degraded areas in the sand bed region.
6. AmerGen’s quality assurance for the measurements in the sand bed region is inadequate.

⁴⁰ AmerGen’s Answer to Citizens’ Motion for Leave to Supplement the Petition (June 27, 2006) at 2.

⁴¹ Order (Granting NIRS’s Motion for Leave to Submit a Supplement to Its Petition) (July 5, 2006) at 3 (unpublished).

⁴² Supplement to Petition to Add a New Contention (July 25, 2006) at 7; LBP-06-22, 64 NRC 229, 233 (2006).

7. AmerGen's methods for analyzing [ultrasonic testing] results in the sand bed region are flawed.⁴³

The Board admitted challenge 2 and rejected all of the others:

1. Rejected. Information on the acceptance criteria was not "new"; analyses were the same as in the early 1990s.⁴⁴
2. Admitted. The company's testing commitment was "new," an explanation was provided as required under 10 C.F.R. § 2.309(f), the contention is within the scope of the proceeding, the issue is material, the contention is supported by alleged facts and expert opinion, and there is a sufficient showing that a genuine dispute exists.⁴⁵
3. Rejected. Information on the inspection program for the epoxy coating was not "new"; contention effectively challenges a program described in the License Renewal Application. Since the inspection program conforms to NRC regulations, the contention was also an impermissible challenge to NRC regulations. Inspection program is not new — it is over a decade old. Improvements to an existing program cannot be challenged where the existing program was not challenged.⁴⁶
4. Rejected. Bases largely the same as for 3.⁴⁷
5. Rejected. Locations where measurements would be taken were known and have not changed, so the information was not "new."⁴⁸
6. Rejected. Information on the inspection program underlying the contention was not "new." Current licensing basis is outside the scope of a license renewal proceeding. No identification of the portions of the license renewal application that Citizens disputes.⁴⁹
7. Rejected. Knowledge of statistical techniques for analyzing the ultrasonic testing measurements was not "new."⁵⁰

Citizens sought reconsideration of the Board's rejection of four of its proposed

⁴³ LBP-06-22, 64 NRC at 236.

⁴⁴ *Id.* at 238-40.

⁴⁵ *Id.* at 240-44.

⁴⁶ *Id.* at 244-48.

⁴⁷ *Id.* at 248-49.

⁴⁸ *Id.* at 249-51.

⁴⁹ *Id.* at 251-53.

⁵⁰ *Id.* at 254-55.

“contentions” (as divided by the Board).⁵¹ The Board found that Citizens had not satisfied the requirements for seeking reconsideration.⁵²

During Oyster Creek’s 2006 refueling outage, water was found in two trenches that had been excavated to permit AmerGen to take ultrasonic testing measurements. AmerGen deepened one of the trenches and took additional measurements. AmerGen concluded after analysis that the drywell liner would be sufficiently thick to remain safe even assuming a conservative (that is, relatively high) estimate on the rate of corrosion. Nonetheless, AmerGen made an additional commitment — this time to take comparative measurements in the same locations in these trenches.⁵³ Citizens asserted that this new monitoring plan was flawed and asked that two new contentions be admitted.⁵⁴ The Board found that both were untimely and would have been inadmissible even if timely.⁵⁵

Later, the Board declined to admit yet another new contention proposed by Citizens.⁵⁶ Citizens requested that the following contention be admitted:

The computer modeling undertaken by General Electric, upon which the disputed acceptance criteria are based, used unjustified factors leading to underestimation

⁵¹ The four “contentions” for which Citizens sought reconsideration were challenges 1, 5, 6, and 7, as numbered by the Board in LBP-06-22.

⁵² Memorandum and Order (Denying Citizens’ Motion for Reconsideration) (Nov. 20, 2006) (unpublished).

⁵³ See Memorandum and Order (Denying Citizens’ Motion for Leave to Add Contentions and Motion to Add Contention) (Feb. 9, 2007) at 3-5 (unpublished) (February 2007 Decision).

⁵⁴ Motion for Leave to Add Contentions and Motion to Add Contentions (Dec. 20, 2006). These two proposed contentions were:

1. The proposed [ultrasonic testing] monitoring program for the embedded region of the drywell shell is inadequate to ensure that safety margins will be maintained for any extended licensing period because the spatial scope of the monitoring is too restricted, a reasonable potential corrosion rate has not been developed, the proposed frequency of monitoring is not justified, and the monitoring could cease if AmerGen filled in the trench from which it proposes to do the monitoring. *Id.* at 4.
2. The proposed [ultrasonic testing] monitoring program for monitoring the lower portion of the [sand bed] region from the outside of the shell is inadequate to ensure that safety margins will be maintained for any extended licensing period because it fails to provide systematic monitoring of potential corrosion occurring from the inside of the drywell shell in the [sand bed] region. *Id.* at 5.

⁵⁵ With respect to timeliness, for both contentions the Board reasoned that information on corrosion in the embedded portion of the drywell liner was addressed in the GALL Report in 2005 and, as such, was not “new.” Citizens should have challenged the first, “unenhanced” version of AmerGen’s monitoring program, which would have been likewise inadequate. February 2007 Decision at 7-10, 16. With respect to admissibility, for both contentions the Board found that Citizens proffered inadequate facts and/or arguments to demonstrate a genuine dispute. *Id.* at 10-19.

⁵⁶ Memorandum and Order (Denying Citizens’ Motion for Leave to Add a Contention and Motion to Add a Contention) (Apr. 10, 2007) (unpublished) (April 2007 Decision).

of the uniform required thickness by over 0.108 inches and of the small area required thickness by over 0.082 inches. For this reason, the acceptance criterion for the average thickness of each bay of the drywell shell should be increased to around 0.844 inches to ensure that the applicable [American Society of Mechanical Engineers (ASME)] Code safety requirements are met or should be replaced with a set of criteria based on accurate and realistic three dimensional modeling of further degradation in the [sand bed]. For similar reasons, the acceptance criterion for small area thicknesses should be increased to at least 0.618 inches or integrated into the acceptance criteria derived from further three dimensional modeling.⁵⁷

Citizens based this new contention on a Sandia National Laboratories (Sandia) study issued in January 2007, commissioned by the NRC's Office of Nuclear Reactor Regulation to evaluate conclusions reached by General Electric Nuclear Energy (GE) in a 1991 study of the structural integrity of the Oyster Creek drywell liner. The difference in the GE and Sandia calculations came from differences in the "capacity reduction factor" used; GE used an increased factor (0.340 rather than the 0.207 factor Sandia used).⁵⁸ The Board found the proposed contention untimely because the increased capacity reduction factor used by GE was not new information.⁵⁹ The Board also considered the 10 C.F.R. § 2.309(c)(1) factors for late-filed contentions, finding no good cause for late filing, which tipped the balance against admitting the contention.⁶⁰

After denying a motion made by AmerGen for summary disposition,⁶¹ the Board clarified that at hearing Citizens' use of AmerGen's 2006 ultrasonic testing measurements as evidence regarding the frequency of the monitoring program would be limited to challenges related to the period of extended operation.⁶² The Board also clarified that Citizens *could not* argue "that the methods of calculation or uncertainties contained in AmerGen's Statistical Analysis are inadequate, or that AmerGen must consider additional uncertainties in performing its analysis."⁶³ But, the Board stated, Citizens *was permitted* to "argue that AmerGen has not been consistent in applying the above-referenced Statistical Analysis and, accordingly, that AmerGen's asserted corrosion rate is suspect."⁶⁴

⁵⁷ Motion for Leave to Add a Contention and Motion to Add a Contention (Feb. 6, 2007) at 6.

⁵⁸ April 2007 Decision at 2-4.

⁵⁹ *Id.* at 6-7.

⁶⁰ *Id.* at 8-12.

⁶¹ Memorandum and Order (Denying AmerGen's Motion for Summary Disposition) (June 19, 2007) at 14 (unpublished).

⁶² Memorandum and Order (Clarifying Memorandum and Order Denying AmerGen's Motion for Summary Disposition) (July 11, 2007) at 4-5 (unpublished) (July 2007 Decision).

⁶³ *Id.* at 4.

⁶⁴ *Id.*

Prior to the evidentiary hearing, the Board denied Citizens' motion to cross-examine AmerGen's witness, Mr. Peter Tamburro. The Board concluded that Citizens had not made the showing required under 10 C.F.R. § 2.1204(b)(3), which allows cross-examination by the parties only when the presiding officer decides that such cross-examination is "necessary to ensure an adequate record for decision." Citizens had the opportunity to provide proposed questions to the Board for the Board's use in conducting its cross-examination.⁶⁵ The Board also denied, in full, AmerGen's and the NRC Staff's motions to strike or accord no weight to portions of Citizens' testimony.⁶⁶ The Board accepted into evidence as exhibits the prefiled testimony of fifteen AmerGen witnesses, five Staff witnesses, and one Citizens witness.⁶⁷ The Board heard testimony from witness panels on six topics during the evidentiary hearing held on September 24-25, 2007.⁶⁸ In accordance with Subpart L procedures, the witness panels were questioned "in those areas that, in the Board's judgment, required additional clarification."⁶⁹ The parties provided proposed written questions both before and during the hearing in order to assist the Board in its questioning.⁷⁰

The final AmerGen testing commitment was addressed in detail at the evidentiary hearing, and reflected AmerGen's ultimate decision to perform ultrasonic testing measurements on a 4-year cycle, beginning with the 2006 refueling outage. This testing complemented AmerGen's plan for visual inspections of the epoxy coating to monitor and verify the coating's continued integrity. Other components of AmerGen's monitoring program included continued application of a strippable coating to prevent water from leaking into the space between the drywell liner and the concrete wall that surrounds it when the reactor cavity is flooded during refueling outages; monitoring of the drains in the sand bed region for leakage, daily during refueling outages, otherwise quarterly; and visual inspections of the epoxy coating applied to the exterior of the drywell shell in all ten bays on a 4-year cycle beginning with the 2006 refueling outage.⁷¹ AmerGen also committed to take the following action prior to the period of extended operation:

AmerGen will perform a 3-D finite element structural analysis of the primary containment drywell shell using modern methods and current drywell shell thickness data to better quantify the margin that exists above the Code required minimum for

⁶⁵ Memorandum and Order (Ruling on Motion to Conduct Cross-Examination and Motions in Limine) (Sept. 12, 2007) at 3-4 (unpublished) (September 2007 Decision).

⁶⁶ *Id.* at 5, 9.

⁶⁷ LBP-07-17, 66 NRC at 337.

⁶⁸ *Id.* at 338.

⁶⁹ *Id.*

⁷⁰ *Id.*; see generally 10 C.F.R. § 2.1207.

⁷¹ Applicant's Exh. 10, encl. at 1-4.

buckling. The analysis will include sensitivity studies to determine the degree to which uncertainties in the size of thinned areas affect Code margins. If the analysis determines that the drywell shell does not meet required thickness values, the NRC will be notified in accordance with 10 [C.F.R. Part] 50 requirements.⁷²

[AmerGen will] [p]erform the full scope of drywell sand bed region inspections prior to the period of extended operation and then every other refueling outage thereafter. The full scope is defined as:

- [Ultrasonic testing] measurements from inside the drywell . . .
- Visual inspections of the drywell external shell epoxy coating in all 10 bays . . .
- Inspection of the seal at the junction between the sand bed region concrete and the embedded drywell shell . . . [and]
- [Ultrasonic testing] measurements at the external locally thinned areas inspected in 2006[.]⁷³

AmerGen's testing commitment is reflected in Commitment No. 27,⁷⁴ which will become a license condition when the renewed license is issued.⁷⁵

B. Board Decision (LBP-07-17)

Two months after the hearing, the Board issued its initial decision on the merits of the admitted contention.⁷⁶ Based upon its analysis of the record evidence before it, including exhibits and written and oral testimony, the Board reached the following conclusion:

[W]e find that AmerGen has demonstrated that the frequency of its planned [ultrasonic testing] measurements, in combination with the other elements of its aging management program, provides reasonable assurance that the sand bed region of

⁷² Applicant's Exh. 10, encl. at 11.

⁷³ Applicant's Exh. 10, encl. at 12-13.

⁷⁴ See Staff Exh. 1, Safety Evaluation Report Related to the License Renewal of Oyster Creek Generating Station, NUREG-1875, Vol. 2, Appendix A (Commitments for License Renewal of OCGS), A-18 to A-33 (Apr. 2007); Safety Evaluation Report Related to the License Renewal of Oyster Creek Generating Station, Supplement 1, Appendix A (Commitments for License Renewal of OCGS), A-2 (Sept. 2007).

⁷⁵ See Staff Exh. 1, at 1-18 (the Staff summarizes the proposed license conditions, stating that "[t]he seventh license condition requires the applicant to perform a 3-D (dimensional) finite-element analysis of the drywell shell prior to entering the period of extended operation").

⁷⁶ LBP-07-17, 66 NRC 327 (2007).

the drywell shell will maintain the necessary safety margin during the period of extended operation.⁷⁷

To arrive at this conclusion, the Board first identified the acceptance criteria for the thickness of the drywell liner and found that the remaining available margin was not less than 0.064 inch.⁷⁸ Next, the Board found that there was no reasonable likelihood of additional corrosion during the period of extended operation because of the corrective actions taken and the protection provided by the triple-layered epoxy coating on the outer wall, and because there is no evidence of measurable past corrosion on the inside wall, where the benign environment precludes significant risk of future corrosion.⁷⁹ The Board found that even if additional corrosion occurred, the planned ultrasonic testing intervals would be sufficiently frequent because the drywell liner “will experience an annual corrosion rate, *at most*, of about 0.0035 inch per year, resulting in corrosion of about 0.014 inch during the 4-year interval between [ultrasonic testing] measurements, which does not begin to approach the available margin of 0.064 inch.”⁸⁰ The Board also found that if additional corrosion were to occur, it would not occur in the most heavily corroded areas because the sand had been removed, meaning that moisture will not be retained in that region, but rather will flow to the bottom of the region where the available margin is at least 0.229 inch, or 300% greater than at the top — thus increasing the Board’s confidence that the planned ultrasonic testing program is sufficient.⁸¹

The initial decision included an “Additional Statement” by Judge Baratta, in which he expressed his agreement with the majority’s findings of fact with a single exception regarding whether there is reasonable assurance that the safety factor required by NRC regulations will be met throughout the period of extended operation under a 4-year inspection cycle.⁸² Judge Baratta would have expanded the 3-D analysis to be performed by the Applicant before the period of extended operation, to include a “conservative best estimate analysis of the actual drywell shell.”⁸³ This analysis “technique might be similar to the one suggested by Citizens’ expert, Dr. Hausler, that uses contour plots generated from known thicknesses both interior and exterior.”⁸⁴

⁷⁷ *Id.*, 66 NRC at 330.

⁷⁸ *Id.* at 341, 344-45, 346-48.

⁷⁹ *Id.* at 341, 356, 363, 365, 371.

⁸⁰ *Id.* at 371; *see also id.* at 341, 366.

⁸¹ *Id.* at 341, 368, 371.

⁸² *Id.* at 373 (Additional Statement).

⁸³ *Id.* at 376 (Additional Statement).

⁸⁴ *Id.* (Additional Statement).

C. Subsequent Litigation

Our order requesting additional briefs, CLI-08-10, was directed toward the issue Judge Baratta raised in his Additional Statement. Specifically, we asked the parties to:

Explain whether the structural analysis that AmerGen has committed to perform, and that is reflected in the Staff's proposed license condition, matches or bounds the sensitivity analyses that Judge Baratta would impose. In any event, explain whether additional analysis is necessary.⁸⁵

Citizens, AmerGen, and the NRC Staff all filed initial and reply briefs⁸⁶ in response to the Commission's direction in CLI-08-10. Affidavits or declarations of experts were attached to all three of the initial briefs and to Citizens' reply brief. We referred the limited issue specified in CLI-08-10, together with the parties' responsive pleadings, to the Board for resolution.⁸⁷

After hearing oral argument and receiving supplemental briefs,⁸⁸ the Board issued an Advisory Memorandum, in which the majority concluded that it was "satisfied that AmerGen's proposed approach to performing the structural analysis will likely — subject to [certain] suggestions discussed [later in the memorandum] — match or bound the sensitivity analysis contemplated by Judge Baratta in his Additional Statement."⁸⁹ In reaching its conclusions and making its suggestions, the majority noted:

To be clear, this Board ruled in LBP-07-17 that AmerGen has demonstrated that its aging management plan will ensure that the drywell shell maintains an adequate safety margin during the renewal period. *Pursuant to that ruling, AmerGen's decision to perform a structural analysis of the drywell shell prior to the renewal period — albeit sensible for purposes of providing a model that better quantifies the available margin and enhances public confidence in the continued safe operation of the plant — was not essential to the granting of its renewal application.*⁹⁰

The Board majority determined that "AmerGen's proposal for creating the base case model appears to use modern methods and sound engineering judgment to generate a 3-D model of the drywell shell that will better quantify the available margin in a manner that is consistent with what Judge Baratta recommended

⁸⁵ CLI-08-10, 67 NRC at 359.

⁸⁶ See notes 8-10, *supra*.

⁸⁷ August 21 Order.

⁸⁸ See notes 13-15, *supra*.

⁸⁹ Advisory Memorandum at 2.

⁹⁰ *Id.* at 2 n.2 (emphasis added).

in his Additional Statement in LBP-07-17.”⁹¹ With respect to the sensitivity analyses that will augment the base-case analysis, “[i]n the Board [majority]’s judgment, AmerGen’s proposed sensitivity analyses appear to match or bound what Judge Baratta would impose.”⁹² According to the Board majority, Judge Baratta identified Dr. Hausler’s contour plot technique as an example of one possible technique AmerGen could employ. AmerGen’s choice to use a different technique “does not compel the conclusion that AmerGen’s proposed sensitivity analysis fails to match or bound what Judge Baratta would impose.”⁹³ In the majority’s view, “the approach and models proposed by AmerGen are consistent with the approaches described in [the article attached as an exhibit to Citizens’ June 11 Brief⁹⁴] and, moreover, . . . they comport with sound engineering judgment.”⁹⁵ Finally, contrary to the Staff’s current plan for reviewing AmerGen’s sensitivity analyses, “[g]iven the unique circumstances of this case, including the Commission’s apparent interest in the adequacy of AmerGen’s analysis, . . . an in-depth review of AmerGen’s completed analysis is warranted. . . .”⁹⁶ To this end, the Board majority “recommend[ed] that the Commission require the Staff to perform, or have performed, a comprehensive and in-depth review of the work done by AmerGen to confirm that it provides, with reasonable assurance, an estimate of the amount of margin that exists, and to confirm that the analysis, as performed, is in fact a conservative best estimate analysis.”⁹⁷ The Board majority also made a series of specific technical suggestions regarding AmerGen’s planned sensitivity analyses:

1. . . . Citizens’ comment concerning the size of the regions in the model is consistent with good engineering practice and has sufficient merit to warrant further action by AmerGen in its development of a conservative best estimate model of the drywell shell. Some of the bays exhibit regions that show little or no corrosion, yet these are modeled as thinned regions in the proposed AmerGen model While this may seem conservative, it may or may not be depending on how the thicknesses of these regions were used. Because there are visual observations of the corrosion, it should be possible to estimate the size of these regions and — informed by engineering judgment — to further subdivide the model where warranted to account for them.

⁹¹ *Id.* at 11.

⁹² *Id.* at 14.

⁹³ *Id.*

⁹⁴ See Citizens’ June 11 Brief at 9, referencing Joshua M. Reinhart & George E. Apostolakis, *Including Model Uncertainty in Risk-Informed Decision Making*, 33 *Annals of Nuclear Energy* 354 (2006) (Reinhart/Apostolakis Article, attached to the brief as Exh. CR 3).

⁹⁵ Advisory Memorandum at 14-15.

⁹⁶ *Id.* at 15.

⁹⁷ *Id.* at 18.

2. . . . [T]he NRC Staff stated . . . that in a letter to the [Advisory Committee on Reactor Safeguards (ACRS)] Chairman . . . , the Director of License [R]enewal recounted communications with Sandia where Sandia stated it did not have access to the test results used to justify modification of the capacity reduction factor and had no position on whether [certain] data . . . satisfies use of the modified capacity reduction factor. We suggest that the Commission consider directing the Staff to have Sandia review the test results and report whether use of the modified factor is justified.

3. It is unclear as to how AmerGen factored into the averaging process [ultra-sonic testing] data that show near-original thickness in development of the average thicknesses used for bays that have heavily corroded areas. We suggest that a sensitivity study be performed to assess the impact of any outlier data on the averages used in the model as outlier data might cause the averages to be biased thick or even thin.

4. The proposed general area reduction of 0.050 inch in the lower half of Bay 19 does not appear to encompass the uncertainty introduced when the external points are compared with the thicknesses proposed by AmerGen in its second sensitivity study. To evaluate the sensitivity of the results, we suggest the reduction in thickness should be increased to 0.075 inch. This value is about equal to the average value of the differences between AmerGen's proposed lower area model input averages and the lower area measured data averages as calculated by Citizens for all ten bays. . . .

5. . . . AmerGen [should] not limit the second sensitivity study to just . . . Bay 19. Rather, AmerGen should also look at the effect of decreasing the thickness in at least one of the other corroded bays, such as Bay 1. It should then look at the combined effect of decreasing the thickness in both Bays 1 and 19 to determine what effect reducing the thickness has on the safety factor.⁹⁸

In a Separate Opinion, Judge Abramson states his view that there is “no material relationship between the referred question and the appeal of LBP-07-17 awaiting decision by the Commission. The simple answer to the Commission’s inquiry . . . is that no additional analysis is required with respect to, and there is nothing raised by the referred question that [affects], in any way, the license renewal proceeding before this Board or this Board’s determination that the challenge should be resolved in favor of [AmerGen].”⁹⁹ Judge Abramson added that in his opinion, holding an evidentiary adjudication before the sensitivity analyses have been performed would not produce a definitive answer to the Commission’s specific inquiry. In Judge Abramson’s view, AmerGen’s commitment would be reflected in a condition to any renewed license, which the Staff will enforce through existing mechanisms (in particular, the Staff’s established licens-

⁹⁸ *Id.* at 16-17 (internal citations omitted).

⁹⁹ Separate Opinion at 2.

ing review, inspection, and enforcement practices). Like the Board majority, he recommends that the Commission direct the Staff to “engage appropriate expertise to conduct a thorough examination of the analyses when submitted.”¹⁰⁰

Thereafter, Citizens filed a motion seeking clarification of the record basis for certain “findings of fact” made by the Board in that memorandum.¹⁰¹ Citizens’ questions related to the Board majority’s description of comparisons AmerGen made between external and internal ultrasonic testing data, and to the majority’s citation to the hearing transcript, rather than to exhibits, in that description.¹⁰² AmerGen opposed Citizens’ motion, pointing to Citizens’ Exhibit 46 as the record evidence underlying the Board majority’s discussion of the comparison between external and internal thickness measurements.¹⁰³ The Board denied Citizens’ motion, stating that the Advisory Memorandum makes no findings of fact but instead provides the majority’s judgment, based on information in the existing evidentiary record, on the issue referred by the Commission. The Board noted that Citizens’ Exhibit 46 provided the requisite evidentiary support and declined to modify the language of the Advisory Memorandum.¹⁰⁴

D. Post-Hearing Notifications

Following issuance of the Board’s Advisory Memorandum, AmerGen¹⁰⁵ and the Staff¹⁰⁶ notified the Commission and the Board of developments relevant

¹⁰⁰ *Id.* at 4.

¹⁰¹ Citizens’ Motion for Clarification of Certain Findings of Fact and Other Appropriate Relief (Nov. 10, 2008) (Citizens’ Record Clarification Motion).

¹⁰² Citizens’ Record Clarification Motion at 2, citing Advisory Memorandum at 9. Before filing the motion, at Citizens’ request, AmerGen pointed out additional places in the transcript where AmerGen’s counsel, on rebuttal, clarified that his statements (in the portion of the transcript cited by the Board majority) were based on Citizens’ Exhibit 46, page 3. Citizens’ Record Clarification Motion at 3 (describing requests from Citizens to AmerGen and AmerGen’s e-mail responses). Additionally, AmerGen pointed to AmerGen’s Oct. 1 Supplemental Brief at 7 n.33, where AmerGen referred to Citizens’ Exhibit 46, page 3 and to AmerGen’s Exhibit 20 at 50. *Id.* Citizens argued that neither of these exhibits shows that the comparison of external and internal data was carried out in the manner the Board described.

¹⁰³ AmerGen’s Answer Opposing Citizens’ Motion for Clarification (Nov. 19, 2008). The NRC Staff also opposed Citizens’ motion, also pointing to Exhibit 46 as the record evidence underlying the Board majority’s discussion. NRC Staff’s Answer in Opposition to Citizens’ November 10, 2008 Motion for Clarification (Nov. 19, 2008).

¹⁰⁴ Order (Denying Citizens’ Motion Seeking Clarification and Other Appropriate Relief) (Nov. 25, 2008) (unpublished) (ADAMS Accession No. ML083300381).

¹⁰⁵ AmerGen’s Commission Notification (Nov. 6, 2008) (AmerGen Notification).

¹⁰⁶ Letter from Mary C. Baty to the Administrative Judges, enclosing Memorandum from Brian E. Holian, Director, Division of License Renewal, Office of Nuclear Reactor Regulation, to Chairman
(Continued)

to this proceeding that came to light during the most recent refueling outage.¹⁰⁷ AmerGen reported that visual inspection of the drywell shell in Bay 11 identified a 6-inch-long rust stain, dry to the touch, and a small isolated area (1/4 inch in diameter) at the top of the stain where the epoxy coating was blistered. Three bumps, similar in size to the blister but with no evidence of associated brown stains, were observed in the same area. Visual inspection also identified several cracks in the moisture seal at the drywell shell interface with the exterior floor of the sand bed region at one location in Bay 3. AmerGen reviewed the “as left” video recording of drywell shell surface in Bay 11 made during the 2006 outage and found an area that appeared to be the same 6-inch rust stain as the stain found during the 2008 outage inspection.

For its part, the Staff stated that the blister, stain, and three additional “bumps” were located very close to one of the ultrasonic testing locations in Bay 11. The Staff reported that AmerGen was investigating the cause of the blister and that the Staff was monitoring the investigation and the repair of the affected area. The Staff also stated that the issue “is considered to be of very low safety significance.”¹⁰⁸

AmerGen later updated the Commission on the status of its investigation, concluding that very small deposits of soluble salts may have remained in small crevices in the steel surface or in the steel grain boundaries themselves after it was cleaned prior to the application of the epoxy coating in 1992.¹⁰⁹ “Soluble salts can draw moisture through the coating via osmosis, and AmerGen believes that this is the most likely corrosion mechanism that caused the blistered area, because no pinholes were identified in the blister samples when viewed under a stereoscope.”¹¹⁰ AmerGen concluded that the corrosion under the Bay 11 blistered area is not a significant safety issue:

Based on the measured thickness of the corrosion byproducts recovered from the underside of the blistered area, only 3.4 mils of drywell shell metal is calculated to have been lost to corrosion. This suggests that, even when corrosion occurs under the epoxy coating over a long period of time, the attendant wastage of metal is of no engineering significance. Dynamic-scan ultrasonic testing . . . from the inside of the drywell in the areas behind and around the blistered area showed a minimum thickness of 750 mils, which meets all applicable acceptance criteria.¹¹¹

Klein, Commissioner Jaczko, Commissioner Lyons, Commissioner Svinicki, the Atomic Safety and Licensing Board, and All Parties, Notification of Information in the Matter of Oyster Creek Nuclear Generating Station License Renewal Application (Nov. 6, 2008) (Staff Notification).

¹⁰⁷ The outage spanned October 24 through November 18, 2008.

¹⁰⁸ Staff Notification, Enclosure at 2.

¹⁰⁹ AmerGen’s Updated Commission Notification (Nov. 17, 2008) (AmerGen Updated Notification).

¹¹⁰ Amergen Updated Notification at 2-3.

¹¹¹ *Id.* at 3.

AmerGen confirmed that the 6-inch stain is the same as that seen in the 2006 “as left” video “taken for informational purposes, and not as part of the visual inspection” at the conclusion of the 2006 outage.¹¹² AmerGen also stated that it repaired and restored the affected area of the epoxy coating in Bay 11.

AmerGen stated that the cracks in the moisture seal resulted from uncured epoxy caulk caused by an incorrect component ratio or incomplete mixing at the time the caulk was applied in 1992. AmerGen repaired the affected region of the moisture seal in Bay 3. According to AmerGen, “the uncured caulk will not have any adverse impact on the integrity of the drywell shell because concentrations of the impurities identified through laboratory analysis are too low to raise corrosion concerns for the carbon steel drywell.”¹¹³

AmerGen added that it repaired some small chips in the epoxy coating in Bays 3, 5, and 7 that likely were caused during inspection and repairs performed during the 2008 outage.¹¹⁴ AmerGen stated that it is investigating the cause and the solution of the delamination of the strippable coating applied to the reactor fuel cavity to prevent water from entering the gap between the drywell shell and the surrounding concrete shield that occurred during the refueling outage. This delamination apparently allowed water to enter Bays 11, 13, 15, and 17. After refueling was completed and the reactor cavity was drained, AmerGen reinspected the epoxy coating and the moisture seal and “confirmed that no coating or shell degradation occurred as a result of the water leakage.”¹¹⁵

The Staff also updated the Commission on the results of its recent inspection related to AmerGen’s license renewal commitments.¹¹⁶ The Staff stated that it completed the onsite portion of its inspection of the three aging management programs associated with the drywell liner and that an inspection report would be issued once the inspection was finished.

Based on this portion of its inspection and its review of the technical information, the Staff concluded that there were no safety-significant conditions relating to the drywell shell that would prohibit restarting the plant¹¹⁷ and “determined that AmerGen has provided an adequate basis to conclude the drywell primary containment [(the shell)] will remain operable during the period until the next

¹¹² *Id.*

¹¹³ *Id.* at 4.

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 5.

¹¹⁶ Preliminary Notification of Event or Unusual Occurrence (PNO-1-08-012), Results of Implementation of Oyster Creek License Renewal Commitments Related to the Drywell Primary Containment (Nov. 17, 2008) (ADAMS Accession No. ML083220240).

¹¹⁷ PNO-1-08-012 at 1.

scheduled examination, in the 2012 refueling outage.’’¹¹⁸ The Staff concluded that, with respect to AmerGen’s implementation of its license renewal commitments:

1. All drywell shell [ultrasonic testing] thickness measurements satisfied AmerGen’s acceptance criteria to ensure current licensing basis design requirements . . . for the thickness of the steel plate are satisfied.
2. There were no identified significant conditions affecting the drywell shell structural integrity.
3. AmerGen’s inspection of the as-found condition of the external drywell shell epoxy coating, in the sand bed regions, was acceptable. In Bay 11, four small blisters (three of which were initially identified as bumps) on the coating, including a small amount of surface rust under the blisters, were identified and repaired. AmerGen reported that some blistering was expected, and would be identified during routine visual examinations. The NRC Staff will review AmerGen’s apparent cause evaluation after it is completed.
4. AmerGen’s inspection of the as-found condition of the external drywell shell moisture barrier seal, between the shell and the sand bed floor, was acceptable. Surface cracks, which did not appear to completely penetrate the seal, were identified in multiple bays, and were adequately repaired. During one crack repair in Bay 3, some drywell shell surface corrosion was also identified and repaired.
5. AmerGen’s activities to monitor and mitigate water leakage from the reactor refueling cavity onto the external surface of the drywell shell and into the sand bed regions are still under evaluation.¹¹⁹

The Staff stated that AmerGen inspected the sand bed bays after the reactor cavity was drained to assess whether the leakage that occurred despite the application of the strippable coating had an effect on the sand bed region of the drywell shell and identified no significant concerns. The Staff stated that AmerGen identified and repaired the problems with the moisture seal in Bay 3 and the epoxy coating in Bay 11 as part of AmerGen’s aging management program implementation. The Staff further noted that these problems ‘‘had a minimal impact on the drywell steel shell and the projected shell corrosion rate remains very small, as confirmed by NRC [S]taff review of [ultrasonic testing] data.’’¹²⁰

The Staff subsequently completed its inspection and confirmed these conclu-

¹¹⁸ *Id.* at 2.

¹¹⁹ *Id.*

¹²⁰ *Id.*

sions (and provided additional details on the inspection, the Staff's observations, corrective actions, and future inspection plans) in its inspection report.¹²¹

II. LEGAL STANDARDS

A. Petitions for Review

Under our rules, the granting of petitions for review is discretionary:

[A] petition for review may be granted in the discretion of the Commission, giving due weight to the existence of a substantial question with respect to the following considerations:

¹²¹ See Letter to Mr. Charles G. Pardee, Chief Nuclear Officer . . . and Senior Vice President, [Exelon] from Darrell J. Roberts, Director, Division of Reactor Safety, Subject: Oyster Creek Generating Station — NRC License Renewal Follow-up Inspection Report 05000219/2008007 (with Enclosure: Inspection Report No. 05000219/200807 (Inspection Report)) (Jan. 21, 2009) (ADAMS Accession No. ML090210106). Citizens made a filing notifying the Commission of the Staff's Inspection Report. See Commission Notification (Jan. 23, 2009) (Citizens' January 23 Notification). In its filing, Citizens argues that information in the Inspection Report "contradicts" certain findings made by the Board in LBP-07-17, and makes the rudiments of a new argument regarding aging management for certain piping systems. See *id.* at 8 n.5. Citizens subsequently duplicated these claims in a motion to reopen. See Section V, *infra*. Because the arguments in Citizens' January 23 Notification are subsumed in its motion to reopen, we do not address them separately.

Citizens also filed a Petition by Nuclear Information and Resource Service; 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 to Require Supplementation of the Safety Evaluation Report for Oyster Creek Nuclear Power Plant (Feb. 19, 2009) (Citizens' February 2009 SER Supplementation Petition). In this filing, Citizens states: "Citizens have never claimed and do not now claim that . . . this Petition is filed as part of their appeal of LBP-07-17." Citizens' February 2009 SER Supplementation Petition at 6. The relief requested is that "the Commission should order the Staff to revise the [safety evaluation report] to incorporate the operating experience found in the report and then determine whether the [aging management programs] for the sand[]bed region and the small bore piping remain adequate to provide reasonable assurance of adequate protection." *Id.* at 17. As Citizens makes clear, this petition is not part of this adjudication and the relief requested is also extra-adjudicatory. Moreover, the relief requested is consistent with actions the Staff would undertake as part of its normal regulatory activities (e.g., inspection and enforcement) should experience prove that changes, for example, to aging management programs are necessary. Consequently, we resolve this petition — in our supervisory role — by directing the Staff to consider Citizens' points in the context of its ongoing regulatory activities. (Exelon and the Staff filed responses in opposition to Citizens' February 2009 SER Supplementation Petition. See Exelon's Answer Opposing Citizens' Petition to Require the NRC to Supplement the Safety Evaluation Report for Oyster Creek (Feb. 27, 2009); NRC Staff's Response in Opposition to Citizens' Petition to Require Supplementation of the Safety Evaluation Report for Oyster Creek (Mar. 2, 2009).)

Citizens also filed a Commission Notification and Submission of Supplemental Information in Support of Pending Motion and Petition (Mar. 30, 2009).

- (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 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.¹²²

Under our adjudicatory scheme, the licensing board’s chief function is carefully to review all of the evidence, including testimony and exhibits, and to resolve any factual disputes.¹²³ While we have the authority to make *de novo* findings of fact, we do not do so “where a Licensing Board has issued a plausible decision that rests on carefully rendered findings of fact.”¹²⁴ “Our standard of ‘clear error’ for overturning a Board’s factual finding is quite high,”¹²⁵ and we defer to our boards’ findings unless “clearly erroneous” — that is, “not even plausible in light of the record viewed in its entirety.”¹²⁶ “[U]nless there is strong reason to believe that in a particular case a board has overlooked or misunderstood important evidence, we will defer to its findings of fact.”¹²⁷ “As for conclusions of law, our standard of review is more searching. We review legal questions *de novo*. We will reverse a licensing board’s legal rulings if they are ‘a departure from or contrary to established law.’”¹²⁸

B. Contention Admissibility

Our contention admissibility “requirements are deliberately strict, and we will reject any contention that does not satisfy the requirements.”¹²⁹ “We give

¹²² 10 C.F.R. § 2.341(b)(4).

¹²³ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-05-19, 62 NRC 403, 411 (2005).

¹²⁴ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-26 (2003). See also *General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Unit 1), ALAB-881, 26 NRC 465, 473 (1987); *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 723 (2005).

¹²⁵ *Private Fuel Storage*, CLI-03-8, 58 NRC at 26.

¹²⁶ *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) (internal quotation marks omitted), referring to *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 93-94 (1998). See also *Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-1, 63 NRC 1, 2 (2006).

¹²⁷ *Private Fuel Storage*, CLI-05-19, 62 NRC at 411.

¹²⁸ *Watts Bar*, CLI-04-24, 60 NRC at 190.

¹²⁹ *USEC Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 437 (2006).

‘substantial deference’ to our boards’ determinations on threshold issues, such as standing and contention admissibility,¹³⁰ and we will affirm “‘decisions on the admissibility of contentions where the appellant ‘points to no error of law or abuse of discretion.’”¹³¹ While a board may view a petitioner’s supporting information in a light favorable to the petitioner, it cannot do so by ignoring our contention admissibility rules, which require the petitioner (not the board) to supply all of the required elements for a valid intervention petition.¹³² Under our rules:

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) . . . [P]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.¹³³

Our “‘requirements for untimely filings (10 C.F.R. § 2.309(c)) and late-filed contentions (10 C.F.R. § 2.309(f)(2))” are “‘stringent.’”¹³⁴ “Section 2.309(c)(2) clearly provides that a petitioner ‘shall address’ all eight factors set forth in section 2.309(c)(1). . . . [F]ailure to comply with our pleading requirements

¹³⁰ *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006).

¹³¹ *USEC Inc.*, 63 NRC at 439 n.32, citing *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637 (2004).

¹³² See *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 422 (2001) (“A licensing board is not free to supply missing information or draw factual inferences on the petitioner’s behalf”), citing *Palo Verde*, CLI-91-12, 34 NRC at 155-56; *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 23 (2007).

¹³³ 10 C.F.R. § 2.309(f)(1).

¹³⁴ *Florida Power & Light Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2, et al.), CLI-06-21, 64 NRC 30, 33 (2006).

for late filings constitutes sufficient grounds for rejecting . . . intervention and hearing requests.’’¹³⁵ Decisions on nontimely filings require a balancing of the eight factors set forth in section 2.309(c)(1), the first of which, good cause for failure to file on time, is the most important.¹³⁶

Regarding new and amended contentions, 10 C.F.R. § 2.309(f)(2) provides that:

[C]ontentions 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 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.¹³⁷

Moreover, “[n]ew 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).”¹³⁸ And, even if the late-filed contention criteria are satisfied, proposed contentions still must meet the threshold admissibility standards contained in 10 C.F.R. § 2.309(f)(1). The Board’s decisions on the admissibility of contentions in this proceeding, whether late-filed or new, were governed by these standards.

III. ANALYSIS OF CITIZENS’ PETITION FOR REVIEW

Citizens groups the arguments in its petition for review into four categories: first, purported errors in the Board’s final decision; second, purported errors in the Board’s decisions regarding the multiplicity of intervention petitions and “new” contentions submitted by Citizens during the course of the proceeding; third, errors that purportedly “pervaded” the proceeding; and finally, a summary of reasons why the Commission should exercise review. Citizens asks the Commission either to deny the license renewal application or remand to the Board

¹³⁵ *Id.* at 34.

¹³⁶ See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 564-65 (2005). See also *Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241, 244 (1986); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-37, 54 NRC 476, 483 (2001), *review declined*, CLI-02-3, 55 NRC 155, 156 n.9 (2002).

¹³⁷ 10 C.F.R. § 2.309(f)(2).

¹³⁸ *Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006).

for further proceedings “after the Commission has corrected the many legal and factual errors” in the Board’s decision.¹³⁹

We take review of LBP-07-17, pursuant to 10 C.F.R. § 2.341(b)(4)(v),¹⁴⁰ solely to clarify the Board’s decision in light of the views on proposed License Condition 7, directing AmerGen to perform a 3-D finite element structural analysis of the drywell shell (per Commitment 27), expressed by Judge Baratta in his Additional Statement, by the Board in its Advisory Memorandum, and by Judge Abramson in his Separate Opinion. As discussed further below, we direct the Staff to enhance its review and enforcement of the license condition. Aside from review of this limited structural analysis issue, we find that Citizens has not met its burden of showing that a petition for review should be granted. Nonetheless, we look briefly at the individual arguments Citizens puts forward in its petition for review before turning to the structural analysis issue.¹⁴¹

A. Alleged Errors in the Board’s Final Decision

1. “Reasonable Assurance” and Burden of Proof

Citizens argues that the Board misinterpreted the NRC’s “reasonable assurance” standard,¹⁴² mistakenly equating it with “adequate protection”¹⁴³ by virtue of the Board’s acceptance of AmerGen’s showing that it complied with certain acceptance criteria by a preponderance of the evidence. According to Citizens, the correct approach would have been to require “a preponderance of the evidence to show *reasonable assurance of compliance* with all the acceptance criteria and the other relevant [current licensing basis] requirements.”¹⁴⁴ Citizens argues that the Commission should decide the level of confidence needed in this case, asserting

¹³⁹ Petition at 25.

¹⁴⁰ The Commission has discretion to take review for “[a]ny other consideration which the Commission may deem to be in the public interest.” 10 C.F.R. § 2.341(b)(4)(v).

¹⁴¹ In the final section of its petition for review, Citizens links the balance of its petition to the specific requirements listed in 10 C.F.R. § 2.341(b) in summary fashion. We address the Petition’s compliance with our requirements in the context of Citizens’ individual points rather than in a separate section of this decision.

¹⁴² To meet its evidentiary burden, an applicant is “not obliged to meet an absolute standard but to provide ‘reasonable assurance’ that public health, safety and environmental concerns were protected, and to demonstrate that assurance ‘by a preponderance of the evidence.’” *Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 421 (1980).

¹⁴³ Determinations regarding the meaning of “adequate protection” under the Atomic Energy Act are exactly the kinds of determinations “where the Commission should be permitted to have discretion to make case-by-case judgments based on its technical expertise and on all the relevant information,” *Union of Concerned Scientists v. NRC*, 880 F.2d 552, 558 (D.C. Cir. 1989), “rather than by a mechanical verbal formula or a set of objective standards,” *id.*

¹⁴⁴ Petition at 4 (emphasis in original).

that in connection with corrosion in the sand bed region of the drywell shell, the Applicant and the Staff have indicated that reasonable assurance requires a 95% confidence level that the minimum thickness requirements will not be violated.¹⁴⁵ But neither the Applicant nor the Staff made this statement; instead, both testified that no rule, ASME Code, or industry practice calls for analyzing ultrasonic testing measurements using 95% confidence intervals.¹⁴⁶

In making these arguments, Citizens impermissibly attempts to add an additional requirement to our well-established legal standards — correctly stated by the Board¹⁴⁷ — that is not supported by Commission case law and regulations.¹⁴⁸ “Reasonable assurance” is not quantified as equivalent to a 95% (or any other percent) confidence level, but is based on sound technical judgment of the particulars of a case and on compliance with our regulations. As the Board stated, our applicable regulations, 10 C.F.R. §§ 54.21 and 54.29, read together, “require AmerGen to establish an aging management program that provides ‘reasonable assurance’ that the Oyster Creek drywell shell will continue to perform its intended function consistent with the [current licensing basis] during the period of extended operation.”¹⁴⁹ To satisfy this “reasonable assurance” standard, AmerGen must make a showing that meets the “preponderance of the evidence” threshold of compliance with the applicable regulations — *not* a 95% confidence level of compliance, as Citizens would have it. Subject to the considerations we discuss below in connection with our discussion of the structural analysis issue,¹⁵⁰ we agree with the Board’s finding that the ultrasonic testing program provides reasonable assurance that the drywell liner will not violate the acceptance criteria during the period of extended operation.¹⁵¹

2. Findings of Fact

Citizens also argues that the Board made a number of “fact-finding” errors. These “errors” concern particular findings the Board made as part of its overall finding regarding the adequacy of AmerGen’s planned ultrasonic testing and aging management program, which “provides reasonable assurance that the sand bed region of the drywell shell will maintain the necessary safety margin during the period of extended operation.”¹⁵² Citizens argues that the Board erred in its

¹⁴⁵ *Id.* at 4-5.

¹⁴⁶ See Applicant Exh. C, Pt. 3, at A.29, Staff Exh. C at Response A.10, Tr. at 562.

¹⁴⁷ LBP-07-17, 66 NRC at 338-40.

¹⁴⁸ See *Union of Concerned Scientists*, 880 F.2d at 557-58.

¹⁴⁹ LBP-07-17, 66 NRC at 340.

¹⁵⁰ See Section III.D, *infra*.

¹⁵¹ LBP-07-17, 66 NRC at 350.

¹⁵² *Id.* at 330.

findings regarding: the elements of the current licensing basis; compliance with the local acceptance criterion; the utility of internal versus external testing data on thickness for determining available margin; selection bias in the external testing measurements; present satisfaction of the current licensing basis safety factor; and placement of the burden of proof regarding certain issues.

We find that Citizens has failed to show “clear error”¹⁵³ that compels a different result,¹⁵⁴ and, further, has failed to demonstrate that the Board’s findings are “not even plausible in light of the record viewed in its entirety.”¹⁵⁵ Citizens’ dissatisfaction with the Board’s findings of fact is not enough. The Board’s findings of fact are supported by and are consistent with the record,¹⁵⁶ and Citizens provides no evidence or arguments that justify substituting our judgment for the Board’s considerable technical expertise. We review Citizens’ arguments on particular fact-finding “errors” below.

a. The Board concluded that the current licensing basis requires Oyster Creek to maintain a safety factor of 2.0, which “means that the actual stresses the shell would experience during a postulated accident scenario are only half of what would cause it to fail.”¹⁵⁷ “In other words, complying with the acceptance criteria derived from the GE analyses provides reasonable assurance that the shell can, without failing, withstand twice the stresses it would experience during the postulated scenario.”¹⁵⁸ The Board found that the drywell shell’s safety factor is currently greater than 2.0, because the GE analysis assumed a uniform thickness thinned to 0.736 inch throughout the sand bed region, while actual measurements show a “thickness . . . on average substantially greater than 0.736 inch.”¹⁵⁹ The Board concluded that the current licensing basis also includes three acceptance criteria derived from GE analyses predicated on maintaining the 2.0 safety factor: a “general buckling criterion” that “requires that the shell maintain an *average* thickness across the entire sand bed region of 0.736 inch”;¹⁶⁰ a “local buckling criterion” that allows thinning down to 0.536 inch over a 1-square-foot area

¹⁵³ *Private Fuel Storage*, CLI-03-8, 58 NRC at 26.

¹⁵⁴ *Three Mile Island*, ALAB-881, 26 NRC at 473.

¹⁵⁵ *Private Fuel Storage*, CLI-03-8, 58 NRC at 26 (internal quotation marks omitted).

¹⁵⁶ The Board cites heavily to both the exhibits and the transcript throughout its decision.

¹⁵⁷ LBP-07-17, 66 NRC at 343 & n.20.

¹⁵⁸ *Id.* at 343, referring to AmerGen Exh. B, Pt. 2, A.11. The “postulated scenario” referred to is “[t]he limiting buckling scenario [which] occurs during a postulated accident when, simultaneously, the reactor is shut down and the refueling cavity is filled with water, an earthquake occurs, and the drywell is under a negative pressure of 2 psi.” *Id.* Under these postulated accident conditions, the weight of the water in the reactor cavity results in compressive stresses on the drywell shell.” AmerGen Exh. B, Pt. 2, A.9.

¹⁵⁹ LBP-07-17, 66 NRC at 343 n.20.

¹⁶⁰ *Id.* at 344.

“which transitions to a surrounding shell thickness of 0.736 inch over a linear distance of 1 foot in each direction, resulting in a localized area of 9 square feet that has an average thickness of less than 0.736 inch”;¹⁶¹ and a “pressure criterion” that allows localized thinning down to 0.490 inch, provided the area of the thinning has a diameter of not more than 2.5 inches.¹⁶² The Board concluded that these

acceptance criteria are part of Oyster Creek’s [current licensing basis] in that they are “plant-specific design-basis information defined in 10 [C.F.R. §] 50.2 as documented in the most recent final safety analysis report . . . as required by 10 C.F.R. [§] 50.71” . . . and, accordingly, they properly guide our analysis in this proceeding.¹⁶³

Citizens argues that the Board’s finding is incorrect because compliance with the acceptance criteria is insufficient, by itself, to ensure that the current licensing basis is not violated. Citizens says that compliance with those criteria is not inconsistent with a safety factor reduced below the required 2.0.¹⁶⁴ In making this argument, Citizens misrepresents the Board’s position — the Board clearly stated that compliance is required not just with the acceptance criteria, but also with the safety factor of 2.0.¹⁶⁵ For the safety factor to fall below 2.0, the drywell shell would have to suffer additional corrosion that thins the shell to less than 0.736 inch (under the GE analysis 0.736 inch is the figure that equates to a 2.0 safety factor¹⁶⁶) *uniformly* throughout the sand bed region of the drywell shell — and the Board did not find that further corrosion in a pattern that could accomplish that kind of uniform thinning will occur. In fact, the Board agreed with Dr. Hausler that any future corrosion would not be significant in the upper part of the former sand bed region with the heaviest existing thinning. Instead, because the sand is no longer present, any future corrosion of potential significance would occur predominantly toward the bottom of the former sand bed region, where the metal is thicker and the “remaining available margin . . . is 0.229 inch . . . which is more than 300% greater than the 0.064 inch of available margin based on measurements taken at the top.”¹⁶⁷

In short, far from identifying any errors in the Board’s conclusions regarding the requirements of the current licensing basis, we find that Citizens’ arguments

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Id.* at 344-45, citing 10 C.F.R. § 54.3 and Tr. at 420-23.

¹⁶⁴ Petition at 7.

¹⁶⁵ LBP-07-17, 66 NRC at 342, 343 n.20.

¹⁶⁶ *Id.* at 343 n.20, citing AmerGen Exh. B, Pt. 2, A.10, A.11.

¹⁶⁷ LBP-07-17, 66 NRC at 368, citing Tr. at 323-25, 344-45, 680-82.

amount only to a misstatement of the Board's conclusions. Citizens also misstates Judge Baratta's views — while Judge Baratta did not believe we have sufficient information to know the actual safety factor, he concurred that “when all things are taken into account, including the actual thickness, the safety factor is likely to be greater than [2.0].”¹⁶⁸

b. According to Citizens, the Board erred when it found that the drywell shell is in compliance with the local acceptance criterion because “no data has been presented to this Board indicating that such a large area [18 inches by 18 inches] in the sand bed region is degraded to 0.800 inches on average”¹⁶⁹ and when it failed to require AmerGen to carry its “burden of calculating the margin above the local acceptance criterion.”¹⁷⁰ To support the first aspect of this argument, Citizens points not to data, but to Dr. Hausler's interpretation of certain AmerGen data, as “corrected” by Dr. Hausler.¹⁷¹ This merely sets forth Citizens' disagreement with the Board's fact findings, but does not demonstrate “clear error” by the Board. We defer to the Board's expertise as the fact finder and decline to substitute the judgment of Dr. Hausler for that of the Board.

With respect to the second aspect of its argument, Citizens criticizes the Board for not using the external (as opposed to the internal) testing results to calculate the remaining local acceptance margin, pointing to the hearing transcript¹⁷² where AmerGen's witness stated that “[t]he external data was used to demonstrate compliance with the local buckling criteria.”¹⁷³ The Board's view of the purpose and significance of the external testing measurements differed, but that does not mean the Board ignored relevant data or misplaced the burden of proof. For example, citing to the record, the Board explained the limitations of using the external testing results for purposes of calculating the buckling margin:

[The] single [ultrasonic testing] measurements taken on the exterior of the shell were not averaged and compared to the general buckling criterion, because each point was selected based on its thinness. Moreover, these points had to be ground flat to allow proper placement of the [ultrasonic testing] probe and consequently, they were made even thinner by about 100 to 200 mils, or 0.10 to 0.20 inch (Tr. at 604-05) (Polaski, Tamburro). These points are thus not representative of the overall shell thickness and do not provide a basis for determining available buckling margin. Rather they are representative of the most severely corroded areas, which were then

¹⁶⁸ *Id.* at 375 (Additional Statement).

¹⁶⁹ Petition at 8, quoting LBP-07-17, 66 NRC at 348 n.25.

¹⁷⁰ *Id.* at 9.

¹⁷¹ *Id.* at 8.

¹⁷² *Id.* at 9, citing Tr. at 633.

¹⁷³ Tr. at 633.

thinned even further by the grinding process (Tr. at 603-04) (Polaski). An average of these measurements would reflect this bias, resulting in a skewed and unrealistic assessment of the shell. See AmerGen Exh. B, Pt. 3, A.22, A.23. Accordingly these points are used to provide individual snapshot indicators of whether the shell complies with the pressure acceptance criterion, not to calculate available margin until the general buckling criterion is violated (AmerGen Exh. B, Pt. 3, A.30).¹⁷⁴

The Board's finding rests on expert testimony in the record.¹⁷⁵ Thus, again, Citizens has failed to show "clear error" in the Board's findings of fact. We defer to the Board's careful, record-based analysis of the information before it.

c. According to Citizens, the Board erred when it "used the internal grid data alone to establish the most limiting margin, . . . because according to AmerGen's own assessment, the internal grids in some of the most corroded bays lie above the severely corroded area, and so are not representative of the condition of the shell."¹⁷⁶ Instead, Citizens argues, the Board should have found that AmerGen failed to meet its burden of showing that the sample bays were representative and its burden of establishing the most limiting margin. Contrary to Citizens' argument, the Board did not shift the burden of proof here. Instead, the Board found that the external data were of value in defining the pressure criterion, but not the buckling criteria. The Board found that the internal grid locations, which were based on over 1000 ultrasonic testing measurements to identify the thinnest areas in each bay, were centered in the part of the sand bed region where the observed corrosion was concentrated (namely, the upper portion of the sand bed region)¹⁷⁷ and concluded "that AmerGen [had] demonstrated by a preponderance of the evidence that the sand bed region satisfies the acceptance criteria, and that there will be an available margin of at least 0.064 inch when Oyster Creek enters the renewal period."¹⁷⁸

d. According to Citizens, the Board erred when it decided "[c]ontrary to

¹⁷⁴ LBP-07-17, 66 NRC at 349 n.30.

¹⁷⁵ See Section IV, *infra*.

¹⁷⁶ Petition at 10.

¹⁷⁷ LBP-07-17, 66 NRC at 346, citing Tr. at 601; AmerGen Exh. B, Pt. 3, A.13; AmerGen Exh. B, Pt. 3, A.12; Tr. at 324; Tr. at 344-45.

¹⁷⁸ LBP-07-17, 66 NRC at 345; see discussion at 345-48, citing, e.g., AmerGen Exh. B, Pt. 3, A.5, A.9, A.10, A.11, A.12, A.15, A.29, A.38; Tr. at 601, 324, 344-45; NRC Staff Exh. 1 at 3-120. See Table incorporating measurement data, LBP-07-17, 66 NRC at 347. See also *id.* at 348 n.27 ("Our conclusion that the sand bed region has an available margin of 0.064 inch is based on the assumption that the entire sand bed region has a uniform thickness of 0.800 inch. Because all the other average grid measurements were greater than 0.800 inch, it may be seen that our conclusion is based on a significantly conservative assumption. See AmerGen Exh. B, Pt.3, A.31").

the evidence presented, . . . that it could not use the results from the external measurement points to determine margin above the mean criterion, because the results contained significant selection bias of between 0.1 and 0.2 inches.’’¹⁷⁹ But the Board relied on oral¹⁸⁰ and written¹⁸¹ testimony for its finding on bias: a series of micrometer readings, in approximately twenty locations, were taken in 1992 that showed measurements in the 0.1 to 0.2 range. In short, the Board’s finding was not contrary to the evidence presented and was in fact supported by the evidence.

e. According to Citizens, the Board erred in finding that the current licensing basis safety factor of 2.0 was met despite “contradictory” testimony from the Staff’s witness, unsupported testimony from both the Staff witness and the GE witness, the Staff’s failure to show that the contour plots prepared by Citizens’ witness contained errors, and Citizens’ demonstration that the Sandia Study showed that the drywell liner had degraded compared to its “as built” condition.¹⁸² To support its argument, Citizens points to testimony by the Staff’s witness Dr. Hartzman, where he appears to testify that the safety factor is 1.9, but also testifies that the safety factor is 2.0 or more, and to testimony by AmerGen’s witness Dr. Mehta that the safety factor is greater than 2. But as the Staff points out,¹⁸³ this testimony only appears to be contradictory because Citizens neglects to mention that the 1.9 figure was a calculation Dr. Hartzman made based on a hypothetical scenario that took, solely for the sake of argument, Citizens’ witness Dr. Hausler’s contour plots as a given,¹⁸⁴ whereas Dr. Hartzman’s actual testimony was that the safety factor was greater than 2.¹⁸⁵ And, because there is no dispute that the drywell shell experienced corrosion in the late 1980s, it is not surprising that the Sandia Study’s modeling of the pre- and post-corrosion condition of the drywell shell would show an effect on the safety factor — what matters is that the Sandia Study supports the conclusion that the safety factor of 2.0 is met in spite of the corrosion that occurred before corrective measures were implemented. The Board’s finding that the 2.0 safety factor is met is grounded on the evidence before it, and Citizens has failed to show clear error.

f. Citizens characterizes the Board’s decisions on certain factual issues as inappropriate shifts in the burden of proof away from AmerGen to Citizens. These

¹⁷⁹ Petition at 10.

¹⁸⁰ Tr. at 604-05.

¹⁸¹ AmerGen Exh. 16 at 101-02.

¹⁸² Petition at 11-12.

¹⁸³ Staff Answer at 10.

¹⁸⁴ Tr. at 450-51.

¹⁸⁵ *Id.* at 453-54.

factual questions related to: the purpose of the epoxy coating on the floor of the shell exterior, the modeling of the local areas of severe corrosion, evaporation rates and evaporative air flow in the upper drywell, the potential for deterioration of the water collection trough in the future, future leakage and the adequacy of leakage prevention measures, and the age of the water collected from the exterior sand bed area in 2006.¹⁸⁶ We do not agree with Citizens' characterization. In our adjudications:

The ultimate burden of proof on the question of whether the permit or license should be issued is . . . upon the applicant. But where . . . one of the other parties contends that, for a specific reason . . . the permit or license should be denied, that party has the *burden of going forward* with evidence to buttress that contention. Once he has introduced sufficient evidence to establish a *prima facie* case, the burden then shifts to the applicant who, as part of his overall burden of proof, must provide sufficient rebuttal to satisfy the Board that it should reject the contention as a basis for denial of the permit or license.¹⁸⁷

The Board's treatment of the evidence is consistent with this practice. Rather than shifting the burden of proof, the Board found, based on the evidence presented, that Citizens had not met its burden of going forward on these questions by providing probative evidence or expert testimony, and we see no reason to disturb the Board's rulings. Dr. Hausler attempted to use past (since corrected) deterioration of the floor outside the shell exterior to prove that the epoxy coating on the shell should be expected to deteriorate in the same way. However, the Board found that Dr. Hausler's inference was contradicted by testimony in the record¹⁸⁸ that "the coating system on the concrete sand bed floor is materially different than the coating system on the drywell shell," both in terms of the purpose of the coating and its method of application.¹⁸⁹ With respect to the modeling of local areas of corrosion, it was not unreasonable for the Board to discount Dr. Hausler's testimony based upon his admission, on the record, that he is "not a structural engineer."¹⁹⁰

On the topic of evaporative flow, the Board evaluated Dr. Hausler's written and oral testimony, and considered his "testimony at the hearing (Tr. at 687) as negating, and withdrawing, Citizens' argument that condensation on the exterior

¹⁸⁶ Petition at 12-13.

¹⁸⁷ *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1093 (1983), quoting *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 345 (1973) (emphasis in original).

¹⁸⁸ Tr. at 744-45.

¹⁸⁹ LBP-07-17, 66 NRC at 363 n.48.

¹⁹⁰ Tr. at 446; *see also* Tr. at 353-54, 479.

of the drywell shell is a potential source of corrosion.”¹⁹¹ The Board found that “Dr. Hausler failed to provide any probative evidence in support of his bare assertion that the sand bed region has a limited air exchange.”¹⁹² And, while Citizens speculates that “the exterior of the sand bed region . . . *probably* has a limited air exchange,”¹⁹³ it offers no support for that speculation.

Citizens asserts that “because Dr. Hausler showed that . . . deterioration [of the trough capturing the water] had occurred in the past . . . it was AmerGen’s burden to prove why deterioration in the future would be negligible.”¹⁹⁴ Just by making this assertion, Citizens concedes that it has not made a *prima facie* case that there will be deterioration in the future — that is, during the license renewal period. Without that *prima facie* case, AmerGen does not have any burden to address in the adjudication whether or not future deterioration would be negligible. Citizens’ arguments on future leakage, adequacy of leakage prevention measures, and the age of water collected in 2006 fail for the same reasons.

3. *Current Licensing Basis*

Citizens argues that the Board failed to consider certain issues related to the current licensing basis that are relevant to extending the license of the facility.¹⁹⁵ Citizens concedes that under 10 C.F.R. § 54.30, compliance with the current licensing basis during the remainder of the initial license term is not part of a license renewal review. But Citizens argues that reasonable assurance of compliance with the current licensing basis during the period of extended operations *is* part of license renewal review under 10 C.F.R. § 54.29.¹⁹⁶ According to Citizens, “[t]he acceptance criteria derived by GE are not part of the [current licensing basis] because they were only referred to in a reference to a reference and the work deriving them was not approved by the NRC Staff at the time they were allegedly added.”¹⁹⁷ As a result, Citizens reasons, the Board’s conclusion that the derivation of these GE acceptance criteria was not within the scope of

¹⁹¹ LBP-07-17, 66 NRC at 353 n.35.

¹⁹² *Id.*

¹⁹³ Citizens’ Post-Hearing Proposed Findings of Fact and Conclusions of Law (Oct. 10, 2007) at 43, cited by Petition at 13.

¹⁹⁴ Petition at 13.

¹⁹⁵ *Id.*

¹⁹⁶ *Id.* at 14. “The licensee’s compliance with the obligation . . . to take measures under its current license is not within the scope of the license renewal review.” 10 C.F.R. § 54.30(b). “A renewed license may be issued . . . if the Commission finds 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]” 10 C.F.R. § 54.29(a).

¹⁹⁷ Petition at 15.

the proceeding was a mistake.¹⁹⁸ Pointing to exhibits and to the transcript, the Staff counters that “[t]he record supports the Board’s finding that the acceptance criteria derived from the GE analysis are plant-specific design-basis information documented in Oyster Creek’s final safety analysis report and [are], therefore, part of Oyster Creek’s [current licensing basis].”¹⁹⁹ We agree with the Staff. The Board’s conclusion that the GE-derived acceptance criteria are part of the current licensing basis is adequately supported by the record.²⁰⁰

Citizens argues alternatively that if the Board was correct in believing that the GE-derived acceptance criteria *are* part of the current licensing basis, then it should have considered the contour plots prepared by Citizens’ witness as part of its evaluation. According to Citizens, the contour plots provide a useful tool to assess compliance with the acceptance criteria, *not* a challenge to the acceptance criteria.²⁰¹ But, as the Board held, Citizens’ use of the contour plots to support its “argument that the available margin is less than 0.064 inch . . . is effectively an attack on the derivation of Oyster Creek’s [current licensing basis] and, thus, [is] beyond the scope of this proceeding.”²⁰² With respect to the utility of the contour plots as a tool for assessing compliance with the current licensing basis, the Board’s finding “[i]n any event, . . . that the contour plots are not reliable representations of the condition of the drywell shell, because they are based on the exterior [ultrasonic testing] measurements, which are significantly biased in the thin direction”²⁰³ is adequately supported by the record.

B. Asserted Errors in the Board’s Decisions Regarding Intervention Petitions and “New” Contentions

1. Timeliness Questions

As we have stressed previously, our contention admissibility and timeliness rules require a high level of discipline and preparation by petitioners, “who must examine the publicly available material and set forth their claims and the support

¹⁹⁸ *Id.*

¹⁹⁹ Staff Answer at 6.

²⁰⁰ LBP-07-17, 66 NRC at 342 & n.19, citing, *e.g.*, NRC Staff Exh. B, A.7; AmerGen Exh. B, Pt. 2, A.8 to A.10, A.12 to A.14, A.16; AmerGen Exh. C, Pt. 2, A.6; AmerGen Exh. 27 at 17-19; NRC Staff Exh. B, A.8; NRC Staff Exh. C.1, A.52; NRC Staff Exh. 1 at 4-71; Tr. at 399, 413, 415-16, 448, 848.

²⁰¹ Petition at 15.

²⁰² LBP-07-17, 66 NRC at 349 n.30.

²⁰³ *Id.*, citing AmerGen Exh. C, Pt. 2, A.7; AmerGen Exh. C, Pt. 3, A.10, A.40; NRC Staff Exh. C, A.26, A.27, A.12(d).

for their claims at the outset.’’²⁰⁴ ‘‘There simply would be ‘no end to NRC licensing proceedings if petitioners could disregard our timeliness requirements’ ’’²⁰⁵ and add new contentions at their convenience during the course of a proceeding based on information that could have formed the basis for a timely contention at the outset of the proceeding.²⁰⁶ Our expanding adjudicatory docket makes it critically important that parties comply with our pleading requirements and that the Board enforce those requirements.²⁰⁷

Citizens argues that the Board erred in rejecting various ‘‘new’’ contentions it proposed during the course of this proceeding. A number of these issues were decided in LBP-06-22. First, according to Citizens, the Board erred when it rejected Citizens’ contention(s) concerning ultrasonic testing measurements, raised in response to the commitments AmerGen made in April and June 2006, on timeliness grounds. These issues were excluded, Citizens argues, on the erroneous theory that Citizens should have challenged the ultrasonic testing results acceptance criteria when it filed its initial petition — even though AmerGen had made no commitment to perform any ultrasonic testing during the period of extended operation at that point in time, rendering challenges to a measurement plan speculative then.²⁰⁸ Citizens misconstrues the basis for the Board’s rejection of this contention. The Board correctly found that the acceptance criteria were not new — even if expanded commitments to apply these criteria were recent. The ultrasonic testing commitments AmerGen made in April and June of 2006 did not alter the acceptance criteria themselves. The acceptance criteria remained the same as they were in the early 1990s, so any challenge to the adequacy of the criteria²⁰⁹ should have been made when Citizens filed its initial set of contentions.

The Board also erred, in Citizens’ view, when it found that AmerGen’s December 2005 commitment to make one more set of ultrasonic testing measurements before the initial license period expired triggered the time period for challenging the scope of ultrasonic testing.²¹⁰ Citizens argues that this is inconsistent with the Board’s later ruling that challenges to testing occurring before the period

²⁰⁴ *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 224-25 (2004), 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).

²⁰⁵ *Louisiana Energy Services*, CLI-04-25, 60 NRC at 225.

²⁰⁶ *See id.*; *McGuire*, CLI-03-17, 58 NRC at 428-29.

²⁰⁷ *Louisiana Energy Services*, CLI-04-25, 60 NRC at 225.

²⁰⁸ Petition at 16-17, referring to LBP-06-22 (slip op.) at 12-14 (64 NRC at 238-40).

²⁰⁹ In any case, even had it been timely, a challenge to the adequacy of the acceptance criteria (or any other component of the current licensing basis) is not within the scope of the license renewal proceeding. *See, e.g., Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 8-9 (2001).

²¹⁰ *Id.* at 17, referring to LBP-06-22 (slip op.) at 29-30 (64 NRC at 250-51).

of extended operation are not permitted.²¹¹ Citizens argues, moreover, that it could not challenge the scope of the testing program until after April 4, 2006, when AmerGen first proposed to perform testing during the period of extended operation.²¹² Again, Citizens misconstrues the basis for the Board's rejection of this contention. The "scope" of the ultrasonic testing refers to the portion of the drywell liner that will be tested. The locations on the drywell shell where the ultrasonic testing measurements are made are fixed. The same locations are used each time a set of measurements is made. As the Board found, the December 2005 commitment made no changes to these measurement locations, and thus provided no new information on which to base a new contention relevant to the scope of the testing.

Citizens argues that since AmerGen did not provide its methods for analyzing the results of ultrasonic testing during the period of extended operations until June 20, 2006, the Board erred when it found Citizens' June/July 2006 challenge to these methods untimely.²¹³ But again, as the Board correctly understood, the new commitment to make additional measurements during the period of extended operations did not alter the statistical methodology for analyzing the results of the testing. With nothing about the methodology being new, this commitment provided no fresh basis for challenging the methodology. In fact, the original license renewal application itself (specifically, in "AmerGen's ASME Section XI, Subsection IWE aging management program") described the methodology for analyzing the testing results.²¹⁴ The Board found that Citizens failed "to provide any evidence that these stated statistical techniques . . . changed as a result of AmerGen's April 4 or June 20 commitments," and that the challenge was therefore untimely and inadmissible.²¹⁵ Citizens has provided no information in its Petition for Review to refute the Board's conclusions.

The Board also erred, according to Citizens, when it found that enhancements to programs that already exist cannot be considered "new information" to support a new contention.²¹⁶ Citizens focuses on one of the Board's reasons for rejecting a contention related to epoxy coating integrity and moisture-monitoring

²¹¹ *Id.* at 17, referring to July 2007 Decision, slip op. at 2.

²¹² *Id.* at 17.

²¹³ *Id.*

²¹⁴ LBP-06-22, 64 NRC at 255. The Board also describes other documentation of the methodology, of which both Citizens and the Staff were aware, and all of which antedate Citizens' original petition. *See id.* at 254-55, citing the license renewal application at 3.5-18, 4-55.

²¹⁵ *Id.* at 255. The Board also reasonably found that Citizens' challenge to AmerGen's statistical techniques was inadmissible on the additional grounds that "Citizens fail[ed] to reference, much less discuss, the 'specific portions of the application' that they dispute, nor do they adequately identify a 'material issue of . . . [disputed] fact' (10 C.F.R. § 2.309(f)(1)(vi))." *Id.* at 255 n.29.

²¹⁶ Petition at 17, referring to LBP-06-22, slip op. at 23 (64 NRC at 246).

enhancements: the Board’s policy concern that conferring an automatic right to file a new contention whenever an applicant improves an existing program might have “the perverse effect of discouraging applicants from enhancing safety, health, and environmental programs on a voluntary basis.”²¹⁷ In our view, the Board’s statement is sensible. All things being equal, we ought not establish disincentives to improvements. In any event, we find the Board’s additional basis for rejecting the new contention to be reasonable:

[A]s a matter of law and logic, if — as Citizens allege — AmerGen’s *enhanced* monitoring program is inadequate, then AmerGen’s *unenanced* monitoring program embodied in its [license renewal application] was *a fortiori* inadequate, and Citizens had a regulatory obligation to challenge it in their original Petition [t]o Intervene.²¹⁸

We see no error in this reasoning and find it equally sound when the Board later applied it to reject a proposed contention concerning a new program for monitoring the embedded region of the drywell liner²¹⁹ and a proposed contention concerning enhancements to the scope of the monitoring of the exterior of the sand bed region.²²⁰

Citizens also argues that the Board was wrong when it found that a proposed contention based on new measurements taken in October 2006 and on a January 2007 Sandia study (and discussion of that study during a January 2007 meeting of the Advisory Committee on Reactor Safeguards Subcommittee on Plant License Renewal) was untimely because it was not based on new information. Citizens claims that the Board ignored the proposed contention’s discussion of “the need for an accurate realistic finite element analysis,” and imposed an unreasonably high burden by insisting that Citizens could have reviewed GE’s study independently prior to filing its initial contentions.²²¹ But Citizens’ proposed contention did not challenge the new measurements or the Sandia study — it challenged

²¹⁷ LBP-06-22, 64 NRC at 246.

²¹⁸ *Id.* at 246 (emphasis in original). As a further basis, the Board pointed out that the proposed contention inappropriately challenged NRC regulations. *Id.* As the Board states: “[b]ecause AmerGen has committed to a program that incorporates the requirements of an ASME Code that is specifically referenced by 10 C.F.R. § 50.55a, Citizens [is] prohibited from challenging its adequacy.” *Id.* at 247. We agree with the Board’s reasoning.

²¹⁹ *See* Petition at 18, referring to Board Memorandum and Order dated December 20, 2006, slip op. at 8, 16. Like the Staff, we find no record of a Board decision issued on December 20, 2006. Staff’s belief that Citizens intended to refer to the Board’s February 2007 Decision is plausible (*see* Staff Answer at 16 n.18), and we make the same assumption here, “correcting” Citizens’ references as required.

²²⁰ *See* Petition at 18, referring to February 2007 Decision, slip op. at 8,16.

²²¹ Petition at 18, referring to April 2007 Decision, slip op. at 2, 5-8.

the underlying GE analysis: “[t]he computer modeling undertaken by General Electric, upon which the disputed acceptance criteria are based, used unjustified factors leading to underestimation of the uniform required thickness”²²² The GE study dates back to 1991.²²³ As the Board noted in its decision, the Staff addressed the increased capacity reduction “factor” in its 1992 safety evaluation report, which Citizens clearly had access to since it was attached as Exh. 3 to their original petition to intervene. The safety evaluation report had attached to it a publicly available technical evaluation report prepared by Brookhaven National Laboratory that evaluated GE’s modification of the capacity reduction factor. According to the Board, therefore, a “simple reading” of these documents would have informed Citizens of the modified factor long before the Sandia Study came out.²²⁴ We agree with the Board that the contention should have been filed as part of the original petition to intervene and that it was untimely when filed.

2. Contention Admissibility and Factual Support

In addition to these asserted errors, which Citizens categorized as errors related to timeliness decisions, Citizens argues that the Board made unsupported factual assumptions, prematurely adjudicating factual issues in the context of deciding contention admissibility. Citizens argues that at the contention admissibility stage the Board should construe the *facts* in favor of the petitioner, as a court does when considering motions to dismiss. This argument ignores our very explicit rules on contention admissibility. While a board may view supporting information in a light favorable to a petitioner, a board may not simply infer the bases for a contention. Failing to provide information required under 10 C.F.R. § 2.309(f)(1) bars admission of the contention.²²⁵

With respect to a proposed challenge to AmerGen’s quality assurance program, Citizens argues that the Board should have accepted its initially unsupported assertion that it had been unable to obtain the results of the 1996 ultrasonic testing data, for which Citizens later provided exhibits showing that AmerGen had denied its September 2005 requests for the information.²²⁶ But, as the Board noted,²²⁷ Citizens did not complain about problems getting the 1996 testing data until a reply brief filed in August 2006. Because Citizens’ supposed troubles date to before it filed its original petition, the arguments about lack of access to the information were untimely when finally raised. Moreover, the exhibits

²²² Motion for Leave to Add a Contention and Motion to Add a Contention (Feb. 6, 2007) at 6.

²²³ April 2007 Decision at 2.

²²⁴ *Id.* at 7.

²²⁵ See *Palo Verde*, CLI-91-12, 34 NRC at 155.

²²⁶ Petition at 19-20.

²²⁷ LBP-06-22, 64 NRC at 252-53 n.27.

supporting Citizens' argument were not provided until even later, as part of Citizens' October 2006 motion for reconsideration of LBP-06-22.²²⁸ Petitioners may not raise entirely new arguments in a reply brief unless the standards for late-filed contentions are met.²²⁹ And even if those standards are satisfied, support for a contention must be provided when the contention is filed, not at some later date.²³⁰

According to Citizens, the Board made similar errors when it rejected a proposed contention concerning the embedded region of the drywell liner "by essentially adjudicating the issue instead of analyzing whether the basis set forth by Citizens was adequate,"²³¹ and when it rejected as untimely a proposed contention concerning the necessity of enhancing the scope of exterior monitoring of the sand bed region of the drywell liner.²³² With regard to the first of these, the Board found that Citizens failed "to provide any facts or arguments to suggest that the corrosive condition in the Bays chosen by AmerGen for the inspections . . . are not representative" and that "the record supports a contrary conclusion."²³³ The Board found that "Citizens . . . provided nothing that suggests the potential for — much less the existence of — such an extreme rate of corrosion in the embedded region" that the local acceptance criteria for buckling would be surpassed.²³⁴ With regard to the second contention, the Board found that "Citizens . . . presented no actual evidence of corrosion on the *interior* of the drywell shell at Oyster Creek, but merely assert that such corrosion is a 'possibility.'"²³⁵ This was not a merits decision, as Citizens argues, but rather a determination that the information Citizens provided did not meet our strict contention admissibility standards. We

²²⁸ See also Memorandum and Order (Denying Citizens' Motion for Reconsideration) (Nov. 20, 2006) at 7 (unpublished).

²²⁹ *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 106 n.26 (2007), citing *Louisiana Energy Services*, CLI-04-25, 60 NRC at 225, and *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 458 (2006).

²³⁰ See 10 C.F.R. § 2.309(f)(1)(v).

²³¹ Petition at 20, referring to February 2007 Decision at 10-13. These pages of the Board's decision refer to Citizens' contention that the spatial scope of the monitoring program in the embedded region of the drywell liner is defective. February 2007 Decision at 10-13.

²³² Petition at 20, referring to February 2007 Decision at 17-19. Citizens' argument is confusing. These pages of the Board's decision actually deal with Citizens' contention that the monitoring program proposed for the outside of the shell is inadequate because it does not include systematic monitoring for corrosion occurring from the inside of the shell.

²³³ February 2007 Decision at 11.

²³⁴ *Id.* at 13.

²³⁵ *Id.* at 17. Again, Citizens' point is confusing, but since Citizens' Petition refers to pp. 17-19, where this interior corrosion is discussed, we assume that Citizens misspoke in referring to the exterior monitoring. Petition at 20.

will not second-guess the Board’s threshold assessment of the support Citizens provided absent clear error, which we do not find here.

3. *Contention “Sub-Issues” and Admissibility*

Citing to parts of two unpublished Board decisions — one clarifying the scope of the admitted contention²³⁶ and the other denying an AmerGen motion for summary disposition²³⁷ — Citizens also makes an argument that it calls “improper exclusion of twice raised issues.”²³⁸ According to Citizens:

[T]he admitted contention implicitly raised the sub-issues of how the acceptance criteria were derived and how the [ultrasonic testing] results should be analyzed. These sub-issues were also explicitly raised by the proposed contention, but were rejected on timeliness grounds. The net result should have been that because these sub-issues were properly raised in a timely manner as part of the admitted contention, they could not be excluded by a simultaneous or subsequent failure to get a separate contention admitted. Therefore, the Board should have allowed all the sub-issues raised by the admitted contention to be fully litigated.²³⁹

The internal logic of this argument is elusive, as are the chronology and the identity of the “implicit” and “explicit” contentions — and Citizens’ citations to these two Board decisions, rather than to (a) contention-admissibility decision(s), adds further confusion. Because of this lack of clarity,²⁴⁰ we find no basis in Citizens’ argument for granting review of any Board decision.

C. **Asserted Errors Associated with the Commission’s Rules of Practice**

In 2004, we revised our procedural rules to streamline hearing processes that had become cumbersome, expensive, and inefficient. As part of the revision, reactor licensing proceedings, including license renewal proceedings, defaulted

²³⁶ July 2007 Decision.

²³⁷ Memorandum and Order (Denying AmerGen’s Motion for Summary Disposition) (June 19, 2007) (unpublished).

²³⁸ Petition at 20.

²³⁹ *Id.* at 21.

²⁴⁰ “The burden of setting forth a clear and coherent argument . . . is on the petitioner. ‘It should not be necessary to speculate about what a pleading is supposed to mean.’” *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 194 (1999) (citations omitted). See *Pa’ina Hawaii, LLC*, LBP-06-12, 63 NRC 403, 407 (2006). Cf. *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 164 (2000) (“[T]he Commission will not accept ‘the filing of a vague, unparticularized’ issue”).

to a more informal process — spelled out in 10 C.F.R. Part 2, Subpart L — than the Subpart G process that formerly applied. Among other things, under Subpart L, mandatory disclosures replace traditional discovery and witness questioning is conducted by the presiding officer (here, the Board) rather than through cross-examination by the parties’ representatives. In *Citizens Awareness Network, Inc. v. NRC*,²⁴¹ the First Circuit rejected facial challenges to these two aspects of the revised rules, finding that the new rules complied with the requirements of the Administrative Procedure Act (APA),²⁴² were not arbitrary and capricious,²⁴³ and were not unconstitutional.²⁴⁴ The court understood the Commission’s decision to reduce the amount of unnecessary cross-examination, stating that it could not find “that it is arbitrary and capricious for the Commission to leave the determination of whether cross-examination will further the truth-seeking process in a particular proceeding to the discretion of the individual hearing officer,”²⁴⁵ provided cross-examination is “allowed in appropriate instances.”²⁴⁶ Our rules allow traditional cross-examination under certain circumstances defined in 10 C.F.R. § 2.700.

Citing *Citizens Awareness Network*, Citizens argues that the Board’s decisions denying motions to apply Subpart G²⁴⁷ and to allow a right to cross-examine an AmerGen witness²⁴⁸ violated the APA. Further, the manner in which the Board conducted the proceeding violated the APA, Citizens argues, because it was not given the right to itself conduct the cross-examination of AmerGen’s witnesses (which was conducted by the Board in accordance with Subpart L procedures). Citizens argues first that the Board, in denying Citizens’ request that the proceeding be conducted under Subpart G rules, “rigidly applied” the standard requiring that the credibility of an eyewitness be at issue.²⁴⁹ Citizens argues that it raised the issue of AmerGen’s “technical credibility” and that the Board “erroneously and prematurely” assumed that AmerGen would not present a witness on the (in Citizens’ view) “overly optimistic” results relied on to establish the safety of the drywell liner.²⁵⁰ Citizens misreads the regulation. The requirements for applying Subpart G to a particular proceeding are set out in 10 C.F.R. § 2.700, which provides that:

²⁴¹ 391 F.3d 338 (1st Cir. 2004).

²⁴² 391 F.3d at 351.

²⁴³ *Id.* at 352.

²⁴⁴ *Id.* at 355.

²⁴⁵ *Id.* at 354.

²⁴⁶ *Id.*

²⁴⁷ *See* Subpart G Decision.

²⁴⁸ *See* September 2007 Decision.

²⁴⁹ Petition at 22.

²⁵⁰ *Id.* at 22-23.

The provisions of this subpart apply to and supplement the provisions set forth in subpart C . . . with respect to . . . proceedings for the . . . renewal . . . of licenses or permits for nuclear power reactors, where the presiding officer by order finds that resolution of the contention necessitates resolution of: issues of material fact relating to the occurrence of a past event, where the credibility of an *eyewitness* may reasonably be expected to be at issue, and/or issues of motive or intent of the party or *eyewitness* material to the resolution of the contested matter²⁵¹

The rule explicitly applies to *eyewitnesses*, not *expert witnesses*. The credibility of a witness testifying based on technical expertise is not the same as the credibility of an eyewitness to a past event. We would find that the Board properly denied the request for conducting the proceeding under Subpart G based on a straightforward application of the requirements of the rule — but, as it happens, Citizens’ challenge to the choice of hearing procedure for this proceeding is also grossly out of time. Our rules, in 10 C.F.R. § 2.311(d), set a *10-day* limit for appealing the Board’s ruling:

An order selecting a hearing procedure may be appealed by any party on the question as to whether the selection of the particular hearing procedures was in clear contravention of the criteria set forth in § 2.310. The appeal must be filed with the Commission no later than ten (10) days after issuance of the order selecting a hearing procedure.²⁵²

In other words, under our rule, the selection of a particular hearing procedure is a decision that must be appealed within 10 days of the selection. It cannot wait until a board issues a decision on the merits of a contention. Here, the Board clearly stated, in LBP-06-7, issued on February 27, 2006, that “[t]he hearing shall be conducted in accordance with the informal adjudicatory procedures prescribed in Subpart L of 10 C.F.R. Part 2.”²⁵³ An appeal of that decision was due 10 days later, by March 9, 2006. An appeal now is untimely, and we reject it on that basis, as well as on the basis that the Board reasonably decided that Subpart L, not Subpart G, applied to this expert-driven dispute.

Citizens next complains that the Board denied its motion²⁵⁴ seeking a limited right to cross-examine AmerGen witness Peter Tamburro, whom Citizens claimed had been inconsistent in his written documents. Citizens complains that the Board then failed to follow up on these inconsistencies when it conducted its own examination, utilizing a panel format rather than questioning Mr. Tamburro in depth.²⁵⁵

²⁵¹ 10 C.F.R. § 2.700 (emphasis added).

²⁵² 10 C.F.R. § 2.311(e).

²⁵³ LBP-06-7, 63 NRC at 228.

²⁵⁴ See September 2007 Decision at 3-4.

²⁵⁵ Petition at 23.

Citizens also complains that the Board's examination of other witnesses was inadequate. "[I]n practice, [Citizens argues,] the [Board's] level of examination of witnesses was insufficient to satisfy the requirements of the APA, because important issues of fact were not fully explored and Citizens [was] denied the ability to cross[-]examine witnesses."²⁵⁶

We disagree. The parties repeatedly were permitted to submit detailed cross-examination questions for the Board's use. While the Board did not follow Citizens' questions as an actor would follow a script, the regulations do not require it to do so, and the Board did address a number of the areas upon which Citizens focused. Moreover, Citizens' counsel frequently interrupted the hearing with his own questions,²⁵⁷ often without objection,²⁵⁸ sometimes with agreement,²⁵⁹ and at times verging on providing testimony himself.²⁶⁰ In addition to the testimony presented during the hearing, the Board had extensive written testimony in the record, and efficiency did not require an oral rehash of every line of written testimony. Citizens may wish the Board had made the findings Citizens preferred, but Citizens has not identified specific gaps in the record testimony and has not shown that issues material to the resolution of its contention were ignored or not explored fully. We find that the Board asked the questions pertinent to clarifying its understanding of the relevant, material issues in this proceeding, and therefore find no prejudicial procedural error justifying review under 10 C.F.R. § 2.341(b)(4)(iv).²⁶¹

²⁵⁶ *Id.* at 24.

²⁵⁷ *See, e.g.*, Tr. at 385-88, 400-04.

²⁵⁸ *See, e.g.*, Tr. at 517-19, 633-34, 636, 644-46.

²⁵⁹ *See* Tr. at 446 (Judge Baratta, responding to Citizens' counsel: "I share your concern. I'd like to have someone respond to that").

²⁶⁰ *See, e.g.*, Tr. at 503, 505-07.

²⁶¹ The Commission noted in promulgating its revised rules in 2004 that NRC hearings, strictly speaking, are not APA-type "on-the-record" hearings triggering the APA's formal hearing requirements:

In contrast to informal hearings for which agencies have greater flexibility in shaping adjudicatory procedures, "on-the-record" hearings under the APA generally resemble adversarial trial-type proceedings with oral presentations by witnesses and cross-examination. . . . Section 189.a of the AEA . . . declares only that "a hearing" (or an opportunity for a hearing) is required for certain types of agency actions. It does not state that such hearings are to be on-the-record proceedings. Furthermore, the legislative history for the AEA provides no clear guidance whether Congress intended agency hearings to be formal, on-the-record hearings. As a legal matter, where Congress provides for "a hearing," and does not specify that the adjudicatory hearings are to be "on-the-record," or conducted as an adjudication under 5 U.S.C. 554, 556, and 557 of the APA, it is presumed that informal hearings are sufficient. Final Rule: Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2183 (Jan. 14, 2004) (citations omitted).

(Continued)

In addition to its Subpart G and cross-examination arguments, Citizens argues that the Board's application of our rules governing late-filed contentions violates the Atomic Energy Act (AEA). The question of whether our contention admissibility and late-filed contention requirements comply with the AEA (and with the APA and the National Environmental Policy Act (NEPA)) received scrutiny in *Union of Concerned Scientists v. NRC (UCS)*.²⁶² There, the court held that our rules are "valid on their face"²⁶³ and "that even the combined effect of the new contentions rule and the late-filing rule does not violate the Atomic Energy Act, the APA, or NEPA."²⁶⁴ Moreover, the balancing test in the Commission's late-filed contention rule, properly applied, is consistent with the AEA.²⁶⁵

Citizens argues that all the issues it raised that the Board did not admit are material to safety and thus must be heard before a decision on renewing the license is made. We have already declined to overturn the Board's admissibility decisions (*see* Section III.B, above). Citizens' unsupported argument that the issues it raised are material to safety and contrary to the AEA does not provide a basis under our rules for overturning the Board's admissibility and timeliness decisions and does not alter our view.²⁶⁶ As the *UCS* court explained, new information concerning safety may be new "evidence," but not necessarily raise a new "issue." A new "issue" is raised "only when *the argument itself (as distinct from its chances of success)* was not apparent at the time of the application."²⁶⁷ Additionally, "whether an actual new 'issue' is raised is a matter for the NRC to determine in the first instance and is reviewed deferentially."²⁶⁸

Even when a particular contention proposed by a party is not admitted on pleading-sufficiency or timeliness grounds, the NRC does not ignore underlying

[N]either the AEA nor the APA require the use of the procedures provided in Subpart G, [so] they should be utilized only where the application of such procedures are necessary to reach a correct, fair and expeditious resolution of such matters. *Id.* at 2205.

The NRC raised this argument in *Citizens Awareness Network*, but the First Circuit did not reach it. 391 F.3d at 348. Thus, even if Citizens had shown an APA violation here — and we do not think it has — the violation would not matter because the APA requirements do not apply. NRC hearing regulations, not the APA, are controlling here.

²⁶² *Union of Concerned Scientists v. NRC*, 920 F.2d 50 (D.C. Cir. 1990).

²⁶³ 920 F.2d at 57.

²⁶⁴ *Id.* at 53 n.2.

²⁶⁵ *See id.* at 55-56.

²⁶⁶ As part of its argument on materiality and the AEA, Citizens argues that information on the current condition of the drywell liner is insufficient because a conservative analysis of that condition has not yet been done, and that the structural analysis described by Judge Baratta in his Additional Statement should be performed. *See* Section III.D, *infra*, for our discussion of 3-D finite element structural analysis issue.

²⁶⁷ 920 F.2d at 55 (emphasis in original).

²⁶⁸ *Id.*

safety or environmental issues. New material, such as (here) the additional commitments made by the Applicant during the course of this proceeding, must be evaluated by the Staff independent of whether a corresponding contention has been admitted, as the *UCS* court recognized.²⁶⁹ NRC hearings provide an opportunity for concerned parties to raise particular issues and receive an independent adjudicatory review. The hearing process is not a substitute for the NRC Staff's complete, top-to-bottom safety and environmental review, which it undertakes in all licensing cases.

Citizens also argues that affirming the Board's decision would violate Citizens' right to due process because Oyster Creek's license should not be renewed "without full consideration of Citizens' concerns that there is insufficient confidence that the reactor meets the safety requirements designed to protect Citizens' lives and property."²⁷⁰ We have considered the contention properly admitted in this proceeding, satisfying Citizens' due process rights. Moreover, the NRC's oversight does not end once the license is renewed — we continue to exercise oversight during operation as required under our regulations and the AEA, just as we have since the plant was originally licensed.

D. AmerGen's Commitment to Perform a 3-D Finite Element Structural Analysis

We take partial review of LBP-07-17 *not* to overturn the Board's fundamental conclusion "that AmerGen has demonstrated that the frequency of its planned [ultrasonic testing] measurements, in combination with the other elements of its aging management program, provides reasonable assurance that the sand bed region of the drywell shell will maintain the necessary safety margin during the period of extended operation,"²⁷¹ *but rather* for two very limited purposes: clarification and direction to the NRC Staff.

First, we clarify that the commitment made by AmerGen, which will be incorporated into the renewed license as a license condition,²⁷² is consistent with achieving Judge Baratta's objective: enhancing the NRC's "understanding of the drywell shell state" by performing "a conservative best estimate analysis

²⁶⁹ *Id.*

²⁷⁰ Petition at 25.

²⁷¹ LBP-07-17, 66 NRC at 330. Let us be clear: the Board's fundamental conclusion in LBP-07-17, authorizing issuance of the renewed license, stands on its own. Citizens has not demonstrated a substantial question with respect to the any of the factors identified in 10 C.F.R. § 2.341(b)(4), nor do we identify any reason to overturn the Board's determinations pursuant to those factors.

²⁷² See Additional Statement, 66 NRC at 376, citing NRC Staff Exh. 1, at 1-18, noting that the commitment will be reflected in the renewed license as License Condition 7.

of the actual drywell shell.’’²⁷³ As the Board majority confirms in its Advisory Memorandum, the majority opinion in LBP-07-17 (expressly endorsed by Judge Baratta) and Judge Baratta’s Additional Statement can be reconciled. Indeed, the Board majority concluded in the Advisory Memorandum “that AmerGen’s proposed approach for its 3-D model and analysis will likely, subject to [certain] recommendations . . . ‘match[] or bound[] the sensitivity analysis that Judge Baratta would impose.’”²⁷⁴

Our own review of the evidentiary record shows that AmerGen has committed to estimate the initial size of thin areas based on the ultrasonic testing measurements and using engineering judgment, and then perform a series of sensitivity analyses for the size of the thinned areas to determine the effect on the Code²⁷⁵ margins. Because AmerGen’s commitment includes the performance of this series of sensitivity analyses, it is reasonable to conclude that AmerGen’s results will be more conservative than the results that would be produced by a sensitivity analysis using Dr. Hausler’s contour plot approach for the thin area estimate. As a result, we find that the results of the sensitivity study to which AmerGen has committed (*see* AmerGen Exh. 10, encl. at 11, reproduced *supra*, Section I.A) would bound the results of a study that used the contour plots. Additionally, as the Board stated, Dr. Hausler’s contour plot technique is in any case only one example of possible techniques that AmerGen could employ in order to perform the analysis, and the approach AmerGen intends to take is conceptually consistent with the approach of using a sensitivity study to consider model uncertainty (in this case, the shell

²⁷³ *Id.* at 376. Misconstruing Judge Baratta’s Additional Statement as a “dissent” (Petition at 5 n.6), Citizens argues in its Petition that “the Commission should agree with Judge Baratta that because there is no analysis that provides a showing of current compliance with the buckling criterion [*sic*] in the [current licensing basis] to a high degree of confidence, reasonable assurance of adequate protection is lacking.” *Id.* at 6. According to Citizens’ argument, we need a better understanding of the actual condition of the drywell shell, because if the drywell shell fails to meet the current licensing basis now, it will necessarily fail at the start of the license renewal period — and the extent of the failure will worsen since, in Citizens’ view, the drywell shell will continue to thin over time. *Id.* at 6 n.7. But contrary to Citizens’ interpretation, Judge Baratta makes quite clear that he agrees with the majority on all points but one. That one point, lack of “a complete understanding of the drywell shell state” (LBP-07-17, 66 NRC at 376 (Additional Statement)), which led him to question the sufficiency of the testing cycle, can be remedied, according to Judge Baratta, by the performance of “a conservative best estimate analysis of the actual drywell shell.” *Id.* And AmerGen asserts that “[i]n fact, AmerGen has committed to conduct such an analysis, including sensitivity analyses that Judge Baratta refers to in his Additional Statement.” AmerGen Answer at 9.

²⁷⁴ Advisory Memorandum at 6 (second and third ellipses in original), citing CLI-08-10, 67 NRC at 359. In our view, the Board’s assessment stands despite the arguments Citizens subsequently made in its Record Clarification Motion (discussed in Section IV, *infra*). In any event, the Advisory Memorandum does not make formal “findings of fact” and the advice it provides is tangential rather than central to the Board’s findings in LBP-07-17, which we affirm.

²⁷⁵ ASME, Boiler and Pressure Vessel Code, Code Case N-284-1, AmerGen Exh. 42.

thickness) in risk evaluation described in the Reinhart/Apostolakis article cited in Citizens' June 11 Brief.

Additionally, exercising our inherent supervisory authority over licensing proceedings,²⁷⁶ we direct the Staff to ensure that Judge Baratta's objective is in fact achieved by enhancing its review of Exelon's compliance with proposed License Condition 7.²⁷⁷ As indicated above, we agree with Judge Abramson that a complete review of Exelon's compliance with the license condition is *not* a precondition for granting the license renewal application and is *separate and apart* from the resolution of the contention at issue in Citizens' Petition — review and enforcement of license conditions is a normal part of the Staff's oversight function rather than an adjudicatory matter. We direct the Staff, suitably informed by the recommendations in the Board's Advisory Memorandum,²⁷⁸ to use its expertise and engineering judgment to scrutinize carefully Exelon's compliance as part of its oversight responsibilities. We adopt the recommendation that the Staff "engage appropriate expertise to conduct a thorough examination of the analyses when submitted."²⁷⁹

Our emphasis on the Staff's close scrutiny of Exelon's compliance with its drywell liner inspection and evaluation commitments, as expressed in License Condition 7, has intensified as a result of the information provided in the notifications recently provided to the Commission by the Staff and by Exelon and in the Staff's inspection report. While these notifications and the inspection report are not part of the evidentiary record — and consequently our comments here are not adjudicatory in nature — we note the apparent failure to locate the Bay 11 blisters and rust stain during the 2006 visual inspection of the condition

²⁷⁶ See, e.g., *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-90-3, 31 NRC 219, 229 (1990); *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-80-12, 11 NRC 514, 516-17 (1980).

²⁷⁷ Exelon recently notified the Staff that it completed a modern 3-D structural analysis of the Oyster Creek drywell shell. Exelon simultaneously submitted its summary of the results of this analysis, including the results of both the base case and the sensitivity analysis. See Letter to U.S. Nuclear Regulatory Commission from Michael P. Gallagher, Vice President, License Renewal Projects, [Exelon], Subject: Results of Three-Dimensional Structural Analysis of the Oyster Creek Drywell Shell, Associated with AmerGen's License Renewal Application (TAC No. MC7624) (with enclosures) (ADAMS Accession No. ML090290261 at 5). Shortly thereafter, Citizens' counsel transmitted a letter to Chairman Klein, principally arguing that Exelon's analysis "disregards" the recommendations made by the Board in its Advisory Memorandum. Letter to Chairman Dale E. Klein from Richard Webster, Eastern Environmental Law Center (Jan. 26, 2009). This letter, which is not part of the adjudicatory record of this proceeding, is referred to the Staff for its consideration in conjunction with its review of Exelon's analyses. We expect that, following the completion of its review, the Staff will respond to Mr. Webster's letter. The NRC Staff subsequently filed NRC Staff's Response to Recent Letters and Notification to the Commission (Jan. 28, 2009).

²⁷⁸ See Section I.C, *supra*.

²⁷⁹ Separate Opinion at 4.

of the drywell shell, even though the blisters and stain are visible on the ‘‘as left’’ video recording made at that time. The Staff’s assessment that the epoxy coating blisters, stain, and moisture seal cracks are of ‘‘very low safety significance’’ is reasonable, in our opinion, based on the limited amount of damage²⁸⁰ and the now completed repairs. But, as always, we expect the Staff’s monitoring to be thorough and complete.

IV. CITIZENS’ FEBRUARY 27, 2008, MOTION FOR CLARIFICATION

Citizens filed a motion with the NRC complaining that the NRC Staff submitted to the Commission a document that Citizens believes constituted an *ex parte*, unauthorized submission.²⁸¹ The document in question is a February 14, 2008, memorandum from the Commission’s Executive Director for Operations to the Commission on the subject of ‘‘Renewal of Full-Power Operating License for Oyster Creek Nuclear Generating Station’’ (SECY-08-0018). The Secretary of the Commission served SECY-08-0018 on the parties on February 21, 2008, and, on the same day, returned SECY-08-0018 to the Staff without action. Citizens seeks clarification on whether SECY-08-0018 was an *ex parte* and unauthorized communication between the NRC Staff and the Commission, and if yes, asks the Commission to instruct the Staff not to make further *ex parte* and unauthorized submissions.

As the NRC Staff pointed out in its response to Citizens’ motion,²⁸² a petition for review does not automatically prevent issuance of a renewed operating license (see 10 C.F.R. §§ 2.340(a) and 54.31(c)). In uncontested operating license renewal proceedings, the Staff is authorized to issue a renewed license once the Director of the Office of Nuclear Reactor Regulation has made the appropriate findings.²⁸³ When a proceeding is contested, the Staff, as a matter of policy, seeks Commission approval to issue the license, even though issuance of the license is not stayed by the petition for review. In this case, SECY-08-0018 is the document by which the Staff requested Commission authorization to issue the renewed license. Far from being an unauthorized submission, SECY-08-0018 was, therefore, a submission contemplated by Commission policy.

²⁸⁰ The minimal damage confirms Citizens’ and the Board’s expectations that future corrosion would not be significant in the upper regions of the drywell shell. See discussion in Section III.A.2.a, *supra*.

²⁸¹ Citizens’ Motion for Clarification (Feb. 27, 2008). See generally 10 C.F.R. § 2.347.

²⁸² NRC Staff’s Response in Opposition to Citizens’ Motion for Clarification (Mar. 4, 2008).

²⁸³ See Staff Requirements Memorandum — SECY-02-0088 — Turkey Point Nuclear Plant, Units 3 and 4, Renewal of Full-Power Operating Licenses (June 5, 2002) (ADAMS Accession No. ML021560479).

We need not reach Citizens' inquiry as to the nature of the communication. SECY-08-0018 was served on all of the parties. Even if we assumed, for the sake of argument, that there was a prohibited communication, it has been cured. As such, no further action need be taken with regard to Citizens' motion.

V. CITIZENS' FEBRUARY 2009 MOTION TO REOPEN

Subsequent to the Staff's completion of its post-outage Inspection Report,²⁸⁴ Citizens filed a motion to reopen the record and postpone final disposition of this proceeding.²⁸⁵ In its motion, Citizens argues that the Staff's Inspection Report contains facts that contradict the testimony of witnesses in the proceeding and invalidate the Board's decision in LBP-07-17.²⁸⁶ Exelon²⁸⁷ and the NRC Staff²⁸⁸ opposed the motion. Citizens subsequently sought leave to file a reply to the Staff's opposition.²⁸⁹

Motions to reopen are governed by 10 C.F.R. § 2.326, which provides:

(a) 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. However, an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented;

(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.

(b) 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) of

²⁸⁴ See note 121, *supra*.

²⁸⁵ Motion by Nuclear Information and Resource Service; 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 to Reopen the Record and to Postpone Final Disposition of the Licensing Decision (Feb. 2, 2009) (Citizens' February 2009 Motion to Reopen), with attached Declaration of Dr. Rudolf Hausler (Feb. 2, 2009) (Hausler February 2009 Declaration).

²⁸⁶ Citizens' February 2009 Motion to Reopen at 1.

²⁸⁷ Exelon's Answer to Citizens' Motion to Reopen the Record and to Postpone Final Disposition of the Licensing Decision (Feb. 11, 2009) (Exelon Answer to February 2009 Motion to Reopen).

²⁸⁸ NRC Staff's Response in Opposition to Citizens' Motion to Reopen the Record and to Postpone Final Disposition of the Licensing Decision (Feb. 12, 2009) (Staff Answer to February 2009 Motion to Reopen).

²⁸⁹ Motion for Leave to File a Reply to the NRC Staff's Opposition to Citizens' Motion to Reopen (Feb. 19, 2009) (Citizens' February 2009 Leave to Reply Motion). (Exelon and the Staff opposed the motion. See Exelon's Answer to Citizens' Motion for Leave to File a Reply (Feb. 23, 2009); NRC Staff's Response to Citizens' Motion for Leave to Reply to [the Staff's Opposition to Citizens' Motion to Reopen (Mar. 2, 2009).)

this section have been satisfied. Affidavits must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised. Evidence contained in affidavits must meet the admissibility standards of this subpart. Each of the criteria must be separately addressed, with a specific explanation of why it has been met. When multiple allegations are involved, the movant must identify with particularity each issue it seeks to litigate and specify the factual and/or technical bases which it believes support the claim that this issue meets the criteria in paragraph (a) of this section.

“The burden of satisfying the reopening requirements is a heavy one,”²⁹⁰ and “proponents of a reopening motion bear the burden of meeting all of [these] requirements.”²⁹¹ “Bare assertions and speculation . . . do not supply the requisite support.”²⁹² “Section 2.326(b) requires motions to reopen to be accompanied by affidavits of qualified experts presenting the factual and/or technical bases for the claim that there is a significant safety issue, together with evidence that satisfies our admissibility standards. A ‘mere showing’ of a possible violation is not enough.”²⁹³

Because a motion to reopen will not be granted unless the movant satisfies all three of the criteria listed in 10 C.F.R. § 2.326(a) and is accompanied by an affidavit that satisfies 10 C.F.R. § 2.326(b), we have considered Citizens’ motion in light of these criteria and the affidavit requirement. With respect to the first of the 10 C.F.R. § 2.326(a) criteria — timeliness — Citizens argues it did not know certain facts until the publication of the Staff’s Inspection Report on January 21, 2009. Exelon counters that the information Citizens relies heavily upon — for example, that the observed “bumps” near the broken blister in Bay 11 were unbroken corrosion blisters — has been available for months.²⁹⁴ While we agree that the bulk of the information relied on in the motion was available to Citizens by November 17, 2008, we cannot say with certainty that some details discussed by Citizens — like the water found in the bottle in Bay 11 on November 15, 2008 — were publicly available prior to the release of the Inspection Report.²⁹⁵

²⁹⁰ *Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1, 5 (1986).

²⁹¹ *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-90-10, 32 NRC 218, 221 (1990).

²⁹² CLI-08-28, 68 NRC at 674.

²⁹³ *Id.*, 68 NRC at 670.

²⁹⁴ See PNO-1-08-012 (note 116, *supra*), AmerGen Updated Notification. The Staff makes similar arguments. Staff Answer to February 2009 Motion to Reopen at 17-19.

²⁹⁵ Indeed, in the Staff Answer to February 2009 Motion to Reopen at 5 n.9, the Staff reports without citation that “[i]t has been recently reported but not verified that on November 15, 2008, AmerGen employees found the funnel connected to the Bay 11 poly bottle clogged. These employees

(Continued)

As a result, solely for purposes of this analysis, we treat the motion as though it satisfied the timeliness requirement of 10 C.F.R. § 2.326(a).²⁹⁶

Citizens' motion to reopen fails, however, because it does not satisfy the other two criteria in 10 C.F.R. § 2.326(a), and because the affidavit attached to the motion does not comply with the requirements of 10 C.F.R. § 2.326(b). We therefore deny the motion.

To meet the second criterion of 10 C.F.R. § 2.326(a), a motion to reopen must raise a significant safety or environmental issue. Citizens contends that it raises a "significant unresolved safety question" because its arguments cast doubt on the Board's findings that the source of water in the sand bed region is the reactor cavity (which is only filled during outages) and that water reaching the sand bed region would evaporate rapidly. This, Citizens argues, affects the Commission's ability to rely on the Board's reasoning and on its conclusion that the aging management program for the drywell liner is adequate.

Citizens' motion mischaracterizes the observations and the conclusions of the Inspection Report. It fails to address the Staff's determination that "[n]o findings of significance were identified,"²⁹⁷ and provides no expert support to controvert that determination. Notably, Citizens' motion does not address the Staff's specific assessment of the condition of the drywell shell:

Monitoring of the condition of the primary containment drywell [the drywell shell or liner] is accomplished through Exelon's ASME Section XI, Subsection IWE monitoring program. The [Staff] inspectors determined Exelon provided an adequate basis to provide assurance that the drywell primary containment will remain operable throughout the period to the next scheduled examination (2012 refueling outage). This determination was based on the inspectors' evaluation of the drywell shell ultrasonic test . . . thickness measurements . . . , direct observations of drywell shell conditions both inside the drywell . . . , including the floor trenches . . . , and outside the drywell in the sand bed regions . . . , condition and integrity of the drywell shell epoxy coating . . . , and condition of the drywell shell moisture barrier seals. . . . On a sampling basis, the inspectors observed that the enhancements made

removed the clog upon inspection, which resulted in water draining to the poly bottle." This is a plausible explanation for the gap between the emptying of the reactor cavity and the appearance of water in the Bay 11 bottle. It provides confirmation that the source of the water is the reactor cavity, especially given the relative volumetric capacities of the funnel and the bottle, and controverts Citizens' unsupported argument that water must be reaching the drywell liner from elsewhere. It does not, however, provide a basis for stating with certainty that the information was publicly available in November.

²⁹⁶In its motion seeking leave to reply, Citizens argues, first, that the Staff makes new factual allegations relating to the clog in the tubing, and second, that the Staff used new information to argue that Citizens' motion to reopen was untimely. Because we find that the motion to reopen was timely, these arguments are moot. We therefore deny the motion for leave to reply.

²⁹⁷Inspection Report at iii.

as a result of license renewal activities were integrated into the existing program for the drywell structural integrity.

The drywell shell epoxy coating and the moisture barrier seal, both in the sand bed region, are barriers used to protect the drywell from corrosion. The problems identified with these barriers . . . were corrected and had a minimal impact on the drywell steel shell. The drywell shell corrosion rate remains very small, as confirmed by the inspectors' review of Exelon's technical evaluations of the 2008 [ultrasonic testing] data. The inspectors determined Exelon provided an adequate basis to conclude the likelihood of additional blisters or moisture barrier seal issues will not impact the containment safety function during the period before the next scheduled examination (2012 refueling outage). This is based on the inspectors' direct observations of four coating blisters and a number of moisture barrier seal issues, review of Exelon's repairs, and direct observation of the general conditions of the drywell shell, both inside the drywell and outside the drywell, in the sand bed regions, as well as the overall condition and integrity of the drywell shell epoxy coating.²⁹⁸

The Inspection Report details water observed in certain sand bed bays²⁹⁹ and on the torus room floor.³⁰⁰ Based on the existence of blisters in the epoxy coating and on these observations of water in the bays and on the torus room floor, Citizens argues that the refueling cavity cannot be the only source of water that could leak to the sand bed region of the drywell liner.³⁰¹ Citizens further argues that the water observed in drywell bays and on the torus room floor shows that water can be present in the sand bed region without being detected in the bottles connected to the drains.³⁰² From this, Citizens extrapolates that absence of water in the bottles during operation of the reactor does not mean that water is absent from the sand bed region during operation.³⁰³ Extending this argument, Citizens states that water could be continually present on the exterior of the drywell shell rather than only for limited periods of time during refueling outages.³⁰⁴

We find that there is no technical basis for Citizens' layered argument or for Citizens' conclusion. Citizens fails to provide factual or expert evidence (*see* 10 C.F.R. § 2.326(b) and discussion *infra*) for its claim that the reactor cavity is not the source of water reaching the sand bed region. Further, its conclusions are directly contradicted by the Inspection Report. Water reached the sand bed region from the reactor cavity because of delamination of the strippable coating applied

²⁹⁸ *Id.* at 2 (citations to particular sections of the Inspection Report deleted).

²⁹⁹ *Id.* at 4, 7-8.

³⁰⁰ *Id.* at 6.

³⁰¹ Citizens' February 2009 Motion to Reopen at 5.

³⁰² *Id.* at 6.

³⁰³ *Id.*

³⁰⁴ *Id.* at 7.

to prevent leakage from the reactor cavity (an issue that has been placed in the corrective action program).³⁰⁵ And the water on the torus room floor is stated in the Inspection Report to have been due to other *identified* system leaks unrelated to the sand bed region of the drywell shell.³⁰⁶ Citizens' motion to reopen does not attempt to controvert these findings.

As part of its "safety significance" argument, Citizens also argues that the Staff's finding in its Safety Evaluation Report that the monitoring program "will provide reasonable assurance that *any* further incidents of water in the sand bed region will be systematically evaluated" is undermined because the Inspection Report shows that monitoring the drains is not an effective way to tell if there is water in the sand bed region.³⁰⁷ We find to the contrary that the Inspection Report demonstrates that, applied correctly, the aging management and inspection programs will detect problems with the drywell liner. Moreover, problems discovered during the implementation of these programs are routinely identified for corrective action.³⁰⁸

We also are not persuaded by Citizens' argument that because the visual inspection conducted in 2006 did not find the blister now known to have been present then, visual observation alone cannot provide reasonable assurance that ongoing corrosion will be detected. This argument fails to account for the fact that visual observation constituted only one aspect of the inspection undertaken during the 2008 outage and is just one of the forms of inspection that will take place in the future.³⁰⁹ The Staff's Inspection Report confirms that the required testing, including ultrasonic testing, was performed and that corrective actions were undertaken as appropriate. Additionally, the discrepancy in the visual inspection results has been entered into Exelon's corrective action program.³¹⁰ Dr. Hausler does not dispute these points. For all of these reasons, we find that Citizens has not satisfied its burden to show that the information it flags is safety significant, thus failing to satisfy 10 C.F.R. § 2.326(a)(2).

Citizens similarly fails to satisfy 10 C.F.R. § 2.326(a)(3) — whether a materially different result would have been likely had the results of the Inspection Report been before the Board when the Board made its findings in LBP-07-17.

³⁰⁵ Inspection Report at 7.

³⁰⁶ *Id.* at 6.

³⁰⁷ *Id.* at 14, quoting Staff's Safety Evaluation Report at 4-69 (emphasis Citizens').

³⁰⁸ *See, e.g.*, Inspection Report at 3; *id.* at 6 (tubes disconnected from funnels; water found in Bay 11 on November 15, 2008).

³⁰⁹ The complete testing process, set forth in Commitment 27, which will become License Condition 7, is described at pp. 248-49, *supra*. The Board also described the testing process in detail, as well as the consequences and corrective actions required if problems are identified as a result of the testing. LBP-07-17, 66 NRC at 334-35 & 334 n.11 (citing AmerGen Exh. B, Pt. 1, A.27).

³¹⁰ Inspection Report at 11.

Citizens simply reiterates its position that the Inspection Report contradicts some of the Board’s factual findings, and then states that “this prong of the reopening test is met.”³¹¹ We find that Citizens’ statement falls far short of meeting its burden to show that the Board’s decision would have been materially different.

In addition to showing that the criteria of 10 C.F.R. § 2.326(a) are satisfied, a motion to reopen must be accompanied by the affidavit of an expert that satisfies the requirements of 10 C.F.R. § 2.326(b). The affidavit must contain specific factual and/or technical bases for the movant’s argument that the three criteria of subpart (a) are satisfied. Expert affidavits must be presented by competent individuals with knowledge of the facts alleged or by experts in the appropriate disciplines and the evidence contained in an affidavit must meet our admissibility standards. In our view, Dr. Hausler’s affidavit does not meet these requirements.³¹² In his affidavit, Dr. Hausler critiques the inspection performed during the outage based on the fact that — fulfilling the purpose of conducting an inspection — the inspection uncovered minor problems,³¹³ all of which were then successfully and appropriately corrected or are being addressed. Dr. Hausler speculates regarding alternate causes for the observed and repaired blisters³¹⁴ and alternate sources of water on the exterior of the drywell shell and on the torus floor,³¹⁵ but provides no supporting evidence. Further, Dr. Hausler makes recommendations³¹⁶ regarding the aging management program for the drywell shell that appear to disregard and seek to alter the existing requirements, including those set out through rulemaking in 10 C.F.R. § 50.55a.³¹⁷ None of these statements provides admissible eviden-

³¹¹ Citizens’ February 2009 Motion to Reopen at 14. In this portion of its motion, Citizens also resurrects its arguments on the hearing process and on cross-examination rights. We address these issues in Section III.C, *supra*.

³¹² We note that, in connection with Dr. Hausler’s qualifications, the Board stated:

Because Dr. Hausler is not familiar with the specific composition of epoxy in use at Oyster Creek (Tr. at 734-35) (Hausler), and because his expertise in oil field applications (Tr. at 667 (Hausler)) — which “generally involve continuous immersion service with highly corrosive pressurized fluids, corrosive gases and continuous fluid flow” (AmerGen Exh. C, Pt. 5, A.5) — is inapplicable to the benign operating environment at Oyster Creek, *we accord diminished weight* to his assertions attacking the reliability of AmerGen’s coating inspection program.

LBP-07-17, 66 NRC at 360-61 n.44 (emphasis added).

³¹³ *See* Hausler February 2009 Declaration at 2-3.

³¹⁴ *Id.* at 4-5.

³¹⁵ *Id.* at 5-6.

³¹⁶ *Id.* at 7-8.

³¹⁷ Our rules are not subject to challenge in an adjudicatory proceeding. *See generally* 10 C.F.R. § 2.335.

tiary support for Citizens' arguments that our reopening standards have been met.³¹⁸

Dr. Hausler also presents no evidence that corrosion has proceeded at a rate inconsistent with the Board's calculations. Nonetheless, Citizens speculates that the maximum corrosion rate might be higher than 0.039 inch per year (which would hypothetically use up the available thickness margin more rapidly). Based on this assertion, Citizens argues that a 4-year inspection cycle is inadequate and that the visual inspections should be augmented with other techniques.³¹⁹ As we pointed out above, the visual inspections already are augmented by other forms of inspection, including ultrasonic testing inspections. In fact, analysis of the blister samples "determined approximately 0.003 inches of surface corrosion had occurred directly under the broken blister"³²⁰ and "[ultrasonic testing] dynamic scan thickness measurements under the four blisters, from inside the drywell, confirmed the drywell shell had no significant degradation as a result of the corrosion."³²¹ Dr. Hausler provides no evidence to address or to controvert this point. Moreover, as Exelon points out,³²² even if the 0.003 inch worth of surface corrosion under the blisters occurred over the 2-year period that Citizens assumes, the available margin of at least 0.064 would not be eroded over the course of the 4-year period between inspections. Further, the blistered area was within a 1- to 2-square-inch area³²³ — that is, an area smaller than 2.5 inches in diameter — which means that the applicable margin is 0.112 inch instead of 0.064 inch since the pressure criterion rather than the general buckling criterion applies.³²⁴ This further justifies the conclusion that the corrosion found under the blisters is not safety significant and would not have materially affected the Board's

³¹⁸We also note that, with respect to corrosion, Dr. Hausler states that he "agree[s] with the statements relating to corrosion in [Citizens' January 23 Notification]." Hausler February 2009 Declaration at 1. By taking this position, Dr. Hausler in effect adopts argument of counsel, provided in extra-judiciary fashion prior to the filing of the motion to reopen, as his own testimony. This approach does not satisfy the requirements of 10 C.F.R. § 2.326(b). Cf. *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 560 n.16 (2004) (Expert affidavit prepared in support of a proposed contention stated that the expert "assisted in the preparation of the . . . pleading and simply endorses '[a]ll of the information given as supporting evidence . . . ' as 'true and correct to the best of my knowledge.'" Board stated that "[s]uch wholesale endorsement of the pleadings seriously undermines our ability to differentiate between the legal pleadings and the facts and opinions expressed by the expert" and required the parties in future in the proceeding to "avoid the 'wholesale endorsement' approach and instead separately state the expert's substantive opinions and whatever supporting facts the expert chooses to cite").

³¹⁹Citizens' February 2009 Motion to Reopen at 7.

³²⁰Inspection Report at 11.

³²¹*Id.*

³²²Exelon Answer to February 2009 Motion to Reopen at 4-5.

³²³Inspection Report at 11.

³²⁴See LBP-07-17, 66 NRC at 348-50.

conclusions. Dr. Hausler does not address the Board's findings that different margins apply depending upon the size of the area of potential corrosion and provides no evidence to show that larger areas of corrosion will be missed by the existing visual and ultrasonic testing inspection program.

Commissioner Jaczko's dissent proposes an alternate path, one with which we cannot agree. The dissent would have us take *sua sponte* review of the information contained in the Inspection Report, admit the report into evidence, and deem Citizens' motion to reopen moot. Based on the Inspection Report, the dissent would modify Commitment 27 (which will become Condition 7 of the renewed license) by moving Exelon's next full scope inspection forward by 2 years — from 2012 to 2010, and by requiring a full scope inspection at *every* refueling outage if commitments are not implemented effectively. In our view, the dissent's proposal would undermine our licensing and regulatory process by disregarding much of our Licensing Board's careful review of the drywell shell corrosion issue, by elevating the significance of the Inspection Report (which, after all, found no significant safety issue), and by ignoring our long-established standards for reopening closed adjudicatory records. Our core concern must be Oyster Creek's safety during the renewal period. Nothing in the Inspection Report or in Commissioner Jaczko's dissent disturbs our overall confidence that Oyster Creek can and will operate safely during the renewal period.

As discussed above, Citizens' motion to reopen falls short of our reopening standards in significant respects. But even putting aside those important legal criteria on reopening extensively litigated cases, we are confident that the inspection frequency set forth in Commitment 27, starting with the next full scope inspection of the drywell in 2012, protects public health and safety fully and, therefore, see no reason to alter the commitment based upon a *sua sponte* review of the Inspection Report. Our primary consideration in making this determination is whether Commissioner Jaczko's proposed change to Commitment 27 is premised on a significant safety risk. It is not. The dissent maintains simply that the Inspection Report introduces enough uncertainty about the sufficiency and implementation of Exelon's commitments to warrant that the Commission, on its own motion and notwithstanding safety findings by the Board and the NRC Staff, revise the license condition. We do not find Commissioner Jaczko's rationale compelling.

We do agree with Commissioner Jaczko to the extent he suggests that had the inspection results been available at the time of the hearing, some parts of the expert testimony before the Board might have addressed the problems uncovered during the 2008 refueling outage — and some details of the Board's analysis might have been modified. But, as explained above, we are not persuaded that this would have changed the Board's ultimate safety findings. For example, in a section of its decision entitled "Even If Corrosion Were To Occur in the Sand Bed Region, AmerGen's Plan To Take [Ultrasonic Testing] Measurements Every 4 Years Provides Reasonable Assurance That The Shell Will Not Violate

The Acceptance Criteria,”³²⁵ the Board found that *even if* it applied Citizens’ own proposed corrosion rate — an “enormously conservative” corrosion rate of 0.039 inch per year — ultrasonic testing measurements taken every 4 years (as provided in Commitment 27) still would be adequate to prevent the shell from exceeding the acceptance criteria.³²⁶ This Board finding reinforces our confidence that at bottom, the performance deficiencies noted in the Inspection Report do not present significant safety risks³²⁷ and would not have altered the Board’s ruling.

Another reason for our confidence in the current inspection schedule is the myriad of related follow-up activities that will be conducted during the renewal period. Perhaps the most important is subsection 3 of Commitment 27, which requires quarterly monitoring of sand bed region drains during the plant operating cycle, and daily monitoring of these drains during refueling outages.³²⁸ This commitment also ensures that if leakage is detected during the quarterly monitoring, the licensee will perform several actions during the next refueling outage: visual inspection of the drywell shell coating and moisture barrier (seal) in the affected bays of the sand bed region; ultrasonic testing of the sand bed areas where visual inspection has indicated damaged coating and corrosion; and ultrasonic testing of the upper drywell region consistent with the existing program.³²⁹ In effect, this means that if any leakage is found during the quarterly drain monitoring between now and the next outage (scheduled for 2010), or if any leakage is found during the daily drain monitoring during the 2010 outage, actions identical to those Commissioner Jaczko would require will in fact be taken in 2010 for the bays where leakage is observed. Indeed, Exelon has stated that follow-up ultrasonic testing will be performed during the next refueling outage (2010) to evaluate the upper drywell shell for corrosion as a result of the 2008 outage water intrusion into the sand bed bays.³³⁰

Moreover, the multiple modes of protective action included in Exelon’s commitments are for the very purpose of identifying problems and ensuring corrective action if, for example, leakage occurs — a point that the Board recognized.³³¹ In addition, it was Exelon itself that identified the deficiencies in performance at issue in the Inspection Report and performed follow-up repairs and evaluations

³²⁵ LBP-07-17, 66 NRC at 366.

³²⁶ *Id.* at 366 n.53 & 371.

³²⁷ Our conclusion is bolstered by the plain language of the Inspection Report itself, which states that “[n]o findings of significance were identified.” Inspection Report at iii.

³²⁸ AmerGen Exh. 10, encl. at 3-4.

³²⁹ *Id.* at 4.

³³⁰ Inspection Report at 7.

³³¹ *See, e.g.*, LBP-07-17, 66 NRC at 334 n.11 & 352 n.34.

consistent with commitments³³² the Board had before it in the record. We simply have no demonstration of a significant safety problem requiring a more extensive oversight program than already exists in the license renewal commitments and conditions.

Finally, to help ensure that the drywell corrosion issue remains under scrutiny, the concerns raised in the Inspection Report have been placed in Exelon's corrective action program.³³³ The NRC's Inspection Report also designated these issues as unresolved items, which means that they will be reviewed in a future NRC inspection,³³⁴ and that their resolution will be formally tracked. Based upon the results of future inspection of these items, NRC Staff has the ability to take appropriate action, if warranted. We expect nothing less than the Staff's rigorous review of the unresolved items in future inspections, and if the findings are not satisfactory, we fully expect Staff to follow up with necessary measures, which could include amended license conditions or enforcement action.

In sum, for the reasons discussed above, we find that Citizens' motion to reopen fails to satisfy our reopening standards — specifically, 10 C.F.R. § 2.326(a)(2) and (3), and the requirements of 10 C.F.R. § 2.326(b) — and reject it on that basis.³³⁵

VI. CONCLUSION

For the foregoing reasons, we find that Citizens has not met its burden of showing that a petition for review of LBP-07-17 and various interlocutory Board decisions should be granted. We nonetheless take review of LBP-07-17, pursuant to 10 C.F.R. § 2.341(b)(4)(v), for two limited purposes:

³³²For example, the closed isolation valve for the reactor cavity trough drain line was identified by Exelon as part of its monitoring for clogging in the drain line. Inspection Report at 5.

³³³*Id.* at 3.

³³⁴*Id.*

³³⁵In its motion to reopen, Citizens also requested that we postpone making a final decision on the license renewal application until the later of February 20, 2009, or until "Exelon resolves the outstanding issues regarding the [aging management program] for the sand[]bed region of the drywell, including carrying out the three dimensional analysis to the specifications of the Board and the [Advisory Committee on Reactor Safeguards]." Citizens' February 2009 Motion to Reopen at 16. February 20, 2009, has passed; the aging management program for the drywell liner is subject to the Staff's ongoing regulatory activities; and we provide specific guidance regarding review of the three-dimensional analysis in today's decision. As a result, we deny Citizens' request for postponement.

We note that Citizens' motion to reopen also includes a Section III, in which Citizens indicates that it might file a new contention related to the aging management of piping. Citizens has not made such a filing.

1. We clarify the Board's decision in light of the views expressed by Judge Baratta in his Additional Statement and the additional views and recommendations provided in the Board's Advisory Memorandum and Judge Abramson's Separate Opinion. We find the Board's decision and Judge Baratta's views not inconsistent and we *affirm* the Board's decision on this point.
2. In our supervisory role, we direct the NRC Staff to enhance its review and verification of Exelon's compliance with License Condition 7, appropriately informed by the recommendations in the Board's Advisory Memorandum, as discussed above.

Apart from this limited review, we *deny* Citizens' petition for review and *terminate* this proceeding.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 1st day of April 2009.

Commissioner Jaczko, Respectfully Dissenting in Part

I concur with my colleagues in large part on this order. I do, however, have a concern with the way in which the Order handles the recent Inspection Report. I believe that the Inspection Report provides evidence that directly contradicts evidence the Board relied upon in ruling against Citizens on its contention in this proceeding. Having contradictory evidence now before us, I believe the better approach would have been for the Commission to address the issue directly and transparently.

Therefore, I would have preferred that the Commission, on its own motion, admit the Inspection Report into evidence, rendering moot the motion to reopen. Considering the new information contained in the Inspection Report, I believe the Commission could support issuance of the renewed license with a relatively minor modification to Exelon's Commitment 27. The current commitment has Exelon perform a full scope sand bed region inspection during the 2008 refueling outage and thereafter at every other refueling outage throughout the renewal period. Based upon Exelon's failure to effectively implement its commitments in the 2008 refueling outage, I believe the commitment should be modified so that a full scope sand bed region inspection is required in the 2010 refueling outage throughout the renewal period; if not implemented effectively, then inspections should be performed in every outage. To say that this simple and straightforward solution would undermine our licensing and regulatory process, as argued by the majority, is hyperbole, at best.

The contention filed by Citizens raised safety concerns about Exelon's commitment to take ultrasonic testing (UT) measurements in the sand bed region every 4 years. Citizens argued this commitment was not sufficiently frequent to ensure an adequate safety margin is maintained between measurements due to the uncertain condition of the drywell shell, the uncertain corrosive environment, and the uncertain corrosion rate. Water could result in corrosion, and the subsequent deterioration of the drywell shell could jeopardize the integrity of the drywell shell, which is a critical line of defense for preventing the release of radioactive material in the event of an accident.

The Board ultimately rejected Citizens' argument that the Applicant's commitments would not be effective in ensuring that water from the refueling cavity will not leak into the sand bed region. The Board concluded that the only source of corrosive-causing water on the external wall of the drywell shell in the sand bed region is the refueling cavity liner; that Exelon's commitments effectively eliminate the potential for water leakage from the refueling cavity liner into that area; and that in the absence of water, there will be no further corrosion. Without any evidence of further corrosion, the Board determined that the thickness of the shell in the sand bed region would not violate the acceptance criteria during the

renewal period and, thus, the Board rejected Citizens' challenge to the frequency of Exelon's UT program.¹

The Inspection Report now before us calls into question part of the Board's findings on this issue — namely that Exelon's commitments effectively eliminated the potential for water to leak into the sand bed region from the refueling cavity liner. This Board finding was premised upon a series of Exelon commitments, and the Inspection Report highlights a series of Exelon errors that now call into question Exelon's ability to implement its commitments in a manner that would ensure their effectiveness in eliminating the potential for water to leak from the refueling cavity area into the sand bed region.

Exelon's commitments attempt to establish a line of defense against water entering the sand bed region. The first line of defense is captured in Exelon's commitment to "apply stainless steel tape and a strippable coating to the refueling cavity liner prior to flooding the refueling cavity."² This is intended to minimize the amount of water that would leak into the cavity trough drain, and thus, ultimately, minimize or eliminate the amount of water that could enter the sand bed bays. In expert testimony introduced by Exelon, and cited by the Board in its decision, the expert clearly relies upon the past success demonstrated by the strippable coating in the 2006 refueling outage as evidence of future success. But the Inspection Report reveals that this commitment is not as foolproof as the Board was led to believe by the expert testimony that supported it. In fact, the inspection found that a part of the strippable coating delaminated and water puddles were subsequently identified in four different sand bed bays.³ Initial evaluations revealed that human error was probably largely to blame. Thus, the testimony relied upon by the Board would have been notably different had the expert been confronted with the evidence contained in the inspection report — evidence that clearly noted that human errors may compromise the effectiveness of the strippable coating to prevent water in the sand bed bays.

Perhaps most troubling, the Inspection Report also discloses that Exelon's action plan, as written, would not have required it to inspect the sand bed bays in this instance. Since the cavity trough drain flow did not exceed 12 gpm, the assumption was that water should not have entered the sand bed bays because the cavity trough could contain it. Thus, were it not for the blistering identified on the epoxy coating, the inspectors noted that Exelon employees would not have been in the bays to notice the water in the first place; instead, employees were in the bays only by chance, and only because they had not met their original schedule to close out the sand bed bays.⁴ None of this provides much confidence in Exelon's

¹ LBP-07-17, 66 NRC at 356.

² *Id.* at 354.

³ Inspection Report at 4.

⁴ Inspection Report at 7.

ability to ensure water remains out of the sand bed bays, as Exelon's experts testified before the Board.

The next two layers of Exelon's proposed defense against water in the sand bed region are Exelon's commitments to check the drains to make sure that, if water does end up in certain areas, the water drains appropriately, and that Exelon has the ability to monitor and measure its volume and flow rate. These commitments require Exelon to verify that the refueling cavity concrete trough drain is clear with no blockage, and to monitor the refueling cavity seal leakage trough drains and the drywell sand bed regions for leakage.⁵ According to the Inspection Report, Exelon's drain lines were not originally set up in a manner that would allow for monitoring. Thus, in order to meet this commitment, Exelon isolated the cavity trough drain line to install a tygon hose to allow drain flow to be monitored. Yet, at least once after the reactor cavity was filled, an examination revealed that the isolation valve had been left closed preventing the water from draining.⁶

Moreover, the Inspection Report continues by explaining the importance of the tygon hose to the monitoring commitment. Exelon's plan was to remotely monitor sand bed drains by checking for the existence of water in poly bottles attached via tygon tubing to a funnel hung below each drain line. In order for the tygon hoses to work effectively, they would have to be connected to their funnels. Yet, Exelon found two of the five tygon tubes disconnected from their funnels and laying on the floor, obviously not fulfilling their intended purpose and thus further invalidating the effectiveness of these procedures, and thus calling into question the expert testimony that the Board relied upon in making its findings.⁷

The final layer of defense relied upon by Exelon and accepted by the Board is the epoxy coating on the exterior of the drywell shell. In dismissing Citizens' claims that the thickness of the shell in the sand bed region needs to be more frequently monitored than Exelon's commitment requires, the Board concluded it was confident that additional monitoring was not necessary based on the "overwhelming record evidence" that there are no pinholes in the protective epoxy coatings, and that visual inspections indicate the epoxy coating is in "very good condition."⁸ The theory was that early indications of coating failure would develop at a very slow rate and thus, visual inspections every 4 years would catch any deterioration in time to prevent failure.⁹

Yet, according to the Inspection Report, the results of a 2006 video inspection which reportedly identified no coating problems in any sand bed bay directly contradict more recent inspections that reveal one small broken blister and three

⁵ LBP-07-17, 66 NRC at 354-55.

⁶ Inspection Report at 4-5.

⁷ *Id.* at 6.

⁸ LBP-07-17, 66 NRC at 360-62.

⁹ *Id.* at 361.

small unbroken blisters in Bay 11. There was also minor chipping in the epoxy coating noted in three different bays, as well as a discoloration noted on Bay 9.¹⁰ This evidence either demonstrates that visual inspections were not as useful as testimony led the Board to conclude, or that the defects noted were new, and thus, deterioration could be occurring much faster than the testimony led the Board to conclude. Either way, the Inspection Report does call into question the expert testimony the Board relied upon in its finding — testimony in which Exelon described the coating as being in “pristine condition.”¹¹ It also provides strong evidence as to why more frequent monitoring of the thickness of the shell in the sand bed region may be necessary in order to ensure safety.

Although the Board ultimately concluded that even if water entered the sand bed region there was an adequate margin of safety to ensure the integrity of the drywell shell, its finding appears premised upon the testimony that indicates each of the layers of Exelon’s defense against this would be effectively implemented. It is not clear if the Board would have been as comfortable with that margin knowing what we now know about Exelon’s inability to meet its commitments to eliminate water from the sand bed region in the first place. The contention at issue was about the adequacy of the planned frequency of the UT monitoring commitment. Not even Citizens argued that the new information merits a decision to reject the license renewal application, but only that the monitoring should be required more frequently.

Effectively, in this case, Exelon persuaded the Board that water could only reach the exterior drywell shell from the reactor cavity liner, and that the commitments ensure that any water from this cavity liner will not flow through to the sand bed bays because of a strippable coating to minimize or eliminate leaks and because of monitoring that would identify water that in fact ended up in the sand bed region. The Inspection Report cites to a failure of the strippable coating to prevent water from entering the sand bed region and a failure of the monitoring commitments to alert Exelon to the presence of water in the sand bed region. As the Inspection Report makes clear, Exelon identified water in the sand bed region only accidentally and not because of an effective program to do so. In fact, Exelon’s series of errors laid out in this Inspection Report provides evidence that directly contradicts Exelon’s ability to meet the commitments. And it provides evidence that the expert testimony the Board found persuasive was optimistic, at best.

Therefore, I believe a reasonable safety solution in this instance is not to allow Exelon to rely upon the 2008 inspection in meeting its commitment for the

¹⁰ Inspection Report at 10-12.

¹¹ LBP-07-17, 66 NRC at 360.

renewed license. Instead, I believe the Commission should have modified the commitment to require Exelon to perform a full scope sand bed region inspection during the 2010 refueling outage. If Exelon implemented the commitments effectively at that time, then it could move to doing the inspection upon every other outage. This would have provided Exelon an opportunity to demonstrate it has the ability to implement its commitments effectively, and would have provided the Commission with the reasonable assurance it needs to have confidence that the conditions in the renewed license will be achieved.

Because the majority has not required a modification of Exelon's commitment in this area, I dissent from this portion of the Order.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

E. Roy Hawkens, Chairman
Dr. Anthony J. Baratta
Dr. Charles N. Kelber

In the Matter of

Docket Nos. 52-012-COL
52-013-COL
(ASLBP No. 09-883-06-COL-BD01)
(Combined License Application)

**SOUTH TEXAS PROJECT
NUCLEAR OPERATING COMPANY,
NRG SOUTH TEXAS 3, LLC,
NRG SOUTH TEXAS 4, LLC,
and the CITY PUBLIC SERVICE
BOARD acting for the CITY OF
SAN ANTONIO, TEXAS
(South Texas Project, Units 3
and 4)**

April 20, 2009

LICENSING BOARDS: REVIEW OF NRC STAFF'S ACTIONS

In adjudicating Petitioners' appeal from the NRC Staff's denial of Petitioners' request for access to SUNSI, we consider whether the NRC Staff correctly applied the criteria established by the Commission and prescribed by order of the Secretary of the Commission — namely, (1) whether the SUNSI request demonstrates a reasonable basis to believe that a potential party is likely to establish standing to intervene; and (2) whether the SUNSI request demonstrates the proposed recipient has a "need" for the SUNSI.

LICENSING BOARDS: REVIEW OF NRC STAFF'S ACTIONS

If a SUNSI request is denied, the NRC Staff shall briefly state the reasons for the denial. The requester then may challenge the NRC Staff's adverse determination with respect to access to SUNSI by filing a challenge with the presiding officer, and the NRC Staff may file a reply to the requester's challenge. Thus, when the appeal appears before us, we are asked to adjudicate a dispute arising from the NRC Staff's adverse determinations regarding likelihood of standing and need.

RULES OF PRACTICE: STANDARD OF REVIEW

Our standard of review in an appeal from an NRC Staff denial of a SUNSI request is *de novo*.

RULES OF PRACTICE: STANDING

To satisfy the likelihood of establishing standing criterion, Petitioner organizations were required to provide sufficient information to allow the NRC Staff to conclude that the requirements for "representational standing" or "organizational standing" could likely be satisfied.

**RULES OF PRACTICE: PROPRIETARY INFORMATION;
CONFIDENTIAL INFORMATION**

SUNSI requests need not be accompanied by affidavits or include lengthy, detailed justifications addressing the likelihood of standing criterion. Rather, such requests need simply include the name and address of the potential party and a description of the potential party's particularized interest that could be harmed by the proposed licensing action sufficient to demonstrate a reasonable basis to conclude he or she could likely establish standing.

**RULES OF PRACTICE: PROPRIETARY INFORMATION;
CONFIDENTIAL INFORMATION**

Although the SUNSI-access procedures do not impose a high threshold for demonstrating need, they must be applied consistent with the principle that it is important to prevent unnecessary disclosure of sensitive information.

**RULES OF PRACTICE: PROPRIETARY INFORMATION;
CONFIDENTIAL INFORMATION**

Had Petitioners offered a reason for needing such information material to the

findings a Licensing Board must make and otherwise explained why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention, they would have satisfied the need criterion.

**RULES OF PRACTICE: PROPRIETARY INFORMATION;
CONFIDENTIAL INFORMATION**

We stress that the requirement to discuss the basis for a proffered contention is not to be equated with the discussion that would be necessary to support an admissible contention. Rather, the discussion need only show why the publicly available information in the application is not sufficient to support the basis and specificity of a proffered contention.

**RULES OF PRACTICE: PROPRIETARY INFORMATION;
CONFIDENTIAL INFORMATION**

We recognize that a petitioner's lack of access to SUNSI may, on occasion, hinder it to some degree in its ability to demonstrate why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention. Any such hindrance, however, does not absolve a petitioner from at least endeavoring to address this criterion. A contrary conclusion would improperly convert the current SUNSI disclosure process from one that is based on a petitioner's ability to show "legitimate need" into one where a petitioner's broad, nonspecific, and speculative assertion of "need" would mandate the wholesale release of SUNSI.

**RULES OF PRACTICE: PROPRIETARY INFORMATION;
CONFIDENTIAL INFORMATION**

The procedure for seeking access to SUNSI does not provide a method for general access to SUNSI or topical access to SUNSI. It provides access to only the information necessary to meaningfully participate in an adjudicatory proceeding, and, further, only grants access to the information that is necessary to provide the basis and specificity of a proffered contention.

**MEMORANDUM AND ORDER
(Affirming Denial of Access to SUNSI)**

Petitioners, who are listed *infra* note 3, are potential parties to this proceeding

that involves a combined license application for the South Texas Project Nuclear Power Plant, Units 3 and 4. On March 2, 2009, Petitioners asked the NRC Staff for access to certain information relating to the application that the Applicant had concluded should be withheld as sensitive, unclassified, nonsafeguards information (SUNSI).¹ Petitioners asserted that they needed access to the information to enhance their review of the license application and, where such information is relevant, to facilitate their crafting of contentions. On March 12, 2009, the NRC Staff denied Petitioners' request, concluding that they failed to demonstrate a need for access to SUNSI. Petitioners appeal the NRC Staff's denial of their request. We affirm.

I. BACKGROUND

In early 2008, the Commission amended its regulations to authorize the Secretary of the Commission to issue orders establishing procedures for potential parties² to obtain access to SUNSI and SGI (10 C.F.R. § 2.307(c)). At the same time, the Commission approved procedures for access to SUNSI and SGI to be imposed by the Secretary (Attachment 1 to Procedures for Access to SUNSI and SGI). The Commission approved these procedures after providing an opportunity for public comments. *See* Response to Public Comments on Proposed Procedures to Allow Potential Intervenors to Gain Access to Relevant Records that Contain [SUNSI] or [SGI] (Feb. 29, 2008) (ADAMS Accession No. ML080380633) [hereinafter Response to Public Comments]. This case presents the first opportunity for a Licensing Board to review the NRC Staff's application of these procedures.

The event that triggered the SUNSI request in the instant case was when South Texas Project Nuclear Operating Company, NRG South Texas 3, LLC, NRG South Texas 4, LLC, and the City Public Service Board acting for the City of San Antonio, Texas [hereinafter referred to collectively as Applicant] filed an application with the NRC for combined licenses (COLs) for two nuclear power plants to be located in Matagorda County, Texas. *See* 74 Fed. Reg. 7934 (Feb. 20, 2009). The NRC Staff published notice of the COL application in the *Federal Register* (*ibid.*), and this notice included an order issued by the Secretary of the

¹ SUNSI is a term coined by the NRC describing a category of information that includes proprietary, confidential commercial, and security-related information. *See* Procedures to Allow Potential Intervenors to Gain Access to Relevant Records that Contain [SUNSI] or Safeguards Information (SGI) (Feb. 29, 2008) at 1 (ADAMS Accession No. ML080380626) [hereinafter Procedures for Access to SUNSI and SGI].

² A "potential party" is any person who intends, or may intend, to participate as a party in the proceeding by demonstrating standing and by filing an admissible contention. *See* 74 Fed. Reg. 7934, 7936 (Feb. 20, 2009) (citing 10 C.F.R. § 2.309).

Commission prescribing procedures regarding, *inter alia*, how potential parties may request access to SUNSI (*id.* at 7936-38). The Secretary's order consisted of relevant portions of the procedures approved by the Commission.

Pursuant to the order issued by the Secretary, a potential party seeking access to SUNSI is required to file a timely request with the NRC Staff that "must" include the following information (74 Fed. Reg. at 7936):

1. "The name and address of the potential party, and a description of the party's particularized interest that could be harmed by the [licensing] action," and
2. "[T]he requester's need for the information in order to meaningfully participate in this adjudicatory proceeding, particularly why the publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention"

Ibid. As relevant here, the NRC Staff will grant access to SUNSI if it determines that: (1) the request demonstrates a reasonable basis to believe a potential party is likely to establish standing to intervene; and (2) the proposed recipient has demonstrated a need for SUNSI (*id.* at 7937). If the NRC Staff denies access, the potential party may challenge the adverse decision before a presiding officer (*ibid.*), and a litigant may challenge a presiding officer's adverse decision by seeking Commission review (*ibid.*) (citing 10 C.F.R. § 2.311).

On March 2, 2009, Petitioners' attorney, Mr. Robert Eye, requested access to SUNSI on behalf of himself and Petitioners. *See* Letter from Robert Eye to the NRC (Mar. 2, 2009) [hereinafter Petitioners' Request].³ Regarding Petitioners' ability to show a likelihood of standing, Mr. Eye represented that: (1) Ms. Dancer and Mr. Wagner have standing in their personal capacities by virtue of living within 50 miles of the proposed reactors; (2) Ms. Hadden and Ms. Brown have standing on behalf of the SEED Coalition membership, which includes Ms. Dancer and Mr. Wagner; and (3) Mr. Johnson has standing on behalf of Public Citizen's Texas Office, which allegedly has members within 50 miles of the proposed reactors. *See* Petitioners' Request at 2.

Regarding Petitioners' need for access to SUNSI, Mr. Eye stated that "Tables 1.3-1 and 1.3-3 estimating the total project costs is one example of necessary information left out of the [E]nvironmental [R]eport. . . . [Ratepayers] have the

³ The Petitioners are: (1) Karen Hadden, Executive Director of the Sustainable Energy and Economic Development (SEED) Coalition; (2) Eliza Brown, Clean Energy Advocate of the SEED Coalition; (3) Matthew Johnson of the Public Citizen's Texas Office (Public Citizen); (4) Susan Dancer of the South Texas Association for Responsible Energy (STARE), who provided her residential address, which is within 50 miles of the proposed nuclear power plants; and (5) Bill Wagner, who provided his residential address, which is within 50 miles of the proposed nuclear power plants. *See* Petitioners' Request at 1-2.

right to know the expected costs of the project, as they will be affected financially by the project” (Petitioners’ Request at 2). Aside from that example, Mr. Eye expressed a broad, nonparticularized need for access to SUNSI, stating that “there are literally hundreds of instances in the Environmental Report” where SUNSI was excluded, and “without viewing it, there is no way to determine if the information withheld could have significant bearing on our contentions. We believe our case could be harmed without access to this information” (*ibid.*).

On March 12, 2009, the NRC Staff denied Petitioners’ SUNSI request. *See* Letter from Mr. James Biggins to Mr. Robert Eye (Mar. 12, 2009) [hereinafter NRC Staff’s Denial]. Regarding standing, the NRC Staff concluded that Ms. Dancer and Mr. Wagner demonstrated a reasonable basis to believe they could likely establish personal standing based on their addresses, which reveal they live within 50 miles of the proposed reactors and, thus, are presumed to have standing (*id.* at 1).⁴

But the NRC Staff concluded that Petitioners failed to show they had a legitimate need for access to SUNSI to “ ‘meaningfully participate in this adjudicatory proceeding, particularly why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention’ ” (NRC Staff’s Denial at 2) (quoting 74 Fed. Reg. at 7936). Regarding Petitioners’ specific request for SUNSI omitted from Tables 1.3-1 and 1.3-3 relating to estimated project costs, the NRC Staff stated:

[Y]ou do not describe why publicly available versions of the Application would not be sufficient to provide the basis and specificity for a proffered contention. Without referencing the publicly available information in the Application and describing the basis for a proffered contention, you have not shown that you need access to the SUNSI information. Your statement that “[a]ccess to this information is critically needed for us to fully review the license application” does not meet the requirements of [74 Fed. Reg. at 7936] to demonstrate a need for the SUNSI information.

NRC Staff’s Denial at 3. Regarding Petitioners’ broad request for other *non-specific* SUNSI that *may* have a bearing on their contentions, the NRC Staff responded that “[t]o the extent you did not specifically identify any other information to which you were seeking access, your request did not include the necessary information to determine that you have demonstrated a need for SUNSI access” (*ibid.*).

⁴The NRC Staff found, however, that the other three individuals (Ms. Brown, Ms. Hadden, and Mr. Johnson) failed to provide sufficient information for the NRC Staff to conclude they could likely establish personal standing (NRC Staff’s Denial at 1-2). Nor, stated the NRC Staff, did the SEED Coalition or Public Citizen provide a reasonable basis for the NRC Staff to conclude they could likely establish organizational or representational standing (*id.* at 2).

On March 17, 2009, Petitioners appealed the NRC Staff's denial of their SUNSI request. *See* Letter from Robert Eye to NRC (Mar. 17, 2009) [hereinafter Petitioners' Appeal]. On March 23, 2009, the NRC Staff replied to Petitioners' appeal, stating that Petitioners' request and appeal "together do not contain enough information to change the NRC Staff's determination regarding the need for access to SUNSI" (NRC Staff Reply to Petitioners' Challenge of the NRC Staff Denial of Access to SUNSI (Mar. 23, 2009) at 5 [hereinafter NRC Staff's Reply]).

On March 20, 2009, the Commission referred Petitioners' appeal to the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel for appropriate action. On March 27, 2009, this Licensing Board was established to preside over Petitioners' appeal.

II. STANDARD OF REVIEW

In adjudicating Petitioners' appeal from the NRC Staff's denial of Petitioners' request for access to SUNSI, we consider whether the NRC Staff correctly applied the criteria established by the Commission (Appendix 1 to Procedures for Access to SUNSI and SGI) and prescribed by order of the Secretary of the Commission (74 Fed. Reg. at 7936-37) — namely, (1) whether the SUNSI request demonstrates "a reasonable basis to believe that a potential party is likely to establish standing to intervene" (74 Fed. Reg. at 7937); and (2) whether the SUNSI request demonstrates the proposed recipient has a "need" for the SUNSI (*ibid.*). Our conclusion that we apply these criteria is based on the language and structural implication of the procedures. Pursuant to the procedures, if a SUNSI request is denied, the NRC Staff shall "briefly state the reasons for the denial" (*ibid.*). The requester then may "challenge the NRC Staff's adverse determination with respect to access to SUNSI . . . by filing a challenge . . . with [the presiding officer]" (*ibid.*), and the NRC Staff may file a reply to the requester's challenge (*id.* at 7938). Thus, when the appeal appears before us, we are asked to adjudicate a dispute arising from — as relevant here — the NRC Staff's adverse determinations regarding likelihood of standing and need. These are the criteria the Commission has directed are relevant to determining whether a potential party should be granted access to SUNSI, these are the criteria the litigants have briefed in their written submissions, and we thus conclude that these are the criteria that we should consider on appeal. *See* Response to Public Comments at 4 (the Secretary's order mandating the procedures for access to

SUNSI “will serve to emphasize and make clear that the presiding officer . . . and the potential parties will be legally bound by the procedures”).⁵

Our standard of review here is *de novo*.

III. ANALYSIS

Before the NRC Staff will grant a potential party’s request for access to SUNSI, two criteria must be satisfied: (1) the request must demonstrate “a reasonable basis to believe that a potential party is likely to establish standing to intervene” (74 Fed. Reg. at 7937); and (2) the request must demonstrate the proposed recipient has a “need” for the SUNSI (*ibid.*). Here, the NRC Staff found that the request demonstrated a reasonable basis to believe that Ms. Dancer and Mr. Wagner could likely establish personal standing and thus satisfy the first criterion (the “likelihood of standing” criterion). But the NRC Staff concluded that the request failed to show that Petitioners had a “need” for the SUNSI. The NRC Staff thus denied the request.

We agree with the NRC Staff that Petitioners’ request failed to satisfy the second criterion — the “need” criterion — for gaining access to SUNSI. Although our analysis could properly be limited to a discussion of the need criterion, we will briefly address Petitioners’ argument relating to the likelihood of standing criterion.

1. *The Likelihood of Standing Criterion*

At the outset, we observe that Petitioners had no difficulty demonstrating a

⁵ Although the procedures state that “[i]f challenges to the NRC Staff determinations are filed, these procedures give way to the normal process for litigating disputes concerning access to information” (74 Fed. Reg. at 7937), we do not construe this sentence as requiring us to ignore the SUNSI-access criteria endorsed by the Commission and briefed by the litigants on appeal. Rather, we understand this sentence as recognizing that once a challenge is filed, access determinations will be made by a presiding officer, who — guided by the SUNSI-access procedures ordered by the Secretary of the Commission — will adjudicate the issues presented by the parties, with the availability thereafter of Commission review under 10 C.F.R. § 2.311. *See* Response to Public Comments at 2 (the SUNSI-access “procedures developed by the Commission will be applicable to persons who have requested or who may request to participate in NRC adjudications conducted under 10 C.F.R. Part 2, Subparts G, K, or L, and who, in connection with a particular proceeding, seek to gain access to such information”).

The scope of our review in the instant case does not extend to whether the information sought by the requesters is properly characterized as SUNSI. *Cf.* 10 C.F.R. § 2.390 (procedures governing NRC Staff’s decisions to withhold information from public disclosure); 10 C.F.R. Part 9, Subpart A (procedures for obtaining information from the NRC Staff under the Freedom of Information Act). Rather, our review here is limited to considering and resolving Petitioners’ appeal of the NRC Staff’s denial of their request for access to SUNSI. *See* 74 Fed. Reg. at 7937.

reasonable basis to believe that Ms. Dancer and Mr. Wagner could likely establish personal standing. They did so by providing their residential addresses and representing that these addresses were within 50 miles of the proposed reactors. *See* Petitioners' Request at 2.

But contrary to Petitioners' argument (Petitioners' Appeal at 2), the NRC Staff did not err in determining that Petitioners failed to provide a reasonable basis for concluding that the SEED Coalition and Public Citizen could likely establish standing. To satisfy this criterion, Petitioners were required to provide sufficient information to allow the NRC Staff to conclude that the requirements for "representational standing" or "organizational standing" could likely be satisfied. This they failed to do. As the NRC Staff explained:

Petitioners have not described the organizational interests of either the SEED Coalition or Public Citizen, and have not explained how the interests that Ms. Dancer and Mr. Wagner seek to protect are germane to the organizational purpose. Without this information, the NRC Staff could not reasonably determine that either the SEED Coalition or Public Citizen would be likely to establish standing to participate in this proceeding.

NRC Staff's Reply at 3.⁶

We emphasize that the standard for satisfying the likelihood of standing criterion in this context is neither steep nor onerous. The Commissioners have confirmed that filing a request for SUNSI entails "relatively minimal effort" (*Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 3), CLI-09-4, 69 NRC 80, 84 (2009)). Thus, SUNSI requests need not be accompanied by affidavits or include lengthy, detailed justifications addressing the likelihood of standing criterion. Rather, such requests need simply include the "name and address of the potential party and a description of the potential party's particularized interest that could be harmed by the [proposed licensing] action" (74 Fed. Reg. at 7936) sufficient to demonstrate a reasonable basis to conclude he or she could likely establish standing (*id.* at 7937).⁷

⁶Commission precedents describing the requirements for establishing representational and organizational standing are longstanding and legion. *See, e.g., Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409-11 (2007); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115-17 (1995).

⁷In their request for SUNSI, Petitioners did not specify whether the SEED Coalition and Public Citizen sought representational standing or organizational standing. *See* Petitioners' Request at 2. The NRC Staff therefore analyzed the likelihood of standing criterion under both theories, and it explained why Petitioners failed to satisfy either theory. *See* NRC Staff's Denial at 2. Moreover, "[t]o

(Continued)

2. *The Need for SUNSI Criterion*

Petitioners also contend the NRC Staff erred in determining that Petitioners failed to provide sufficient information to demonstrate a legitimate need for SUNSI. *See* Petitioners' Appeal at 2-3. For the reasons explained by the NRC Staff, we disagree. *See* NRC Staff's Reply at 3-5; NRC Staff's Denial at 2-3.

In Petitioners' March 2 request for SUNSI, the only specific example of SUNSI they stated they needed related to "total project costs" (Petitioners' Request at 2), and they expressed their alleged need as follows:

Tables 1.3-1 and 1.3-3 estimating the total project costs is one example of necessary information left out of the environmental report. If ratepayers in at least one municipal utility market have the costs of nuclear power from [the Applicant] incorporated into their electricity rates, they have the right to know the expected costs of the project, as they will be affected financially by the project.

Ibid. Although the SUNSI-access procedures do not impose a high threshold for demonstrating need, they must be applied consistent with the principle that it is "important to prevent . . . unnecessary disclosure of sensitive information" (Procedures for Access to SUNSI and SGI at 4). In this case, Petitioners' cursory description of their alleged need for SUNSI relating to project costs focused solely on the ratepayers "right to know the expected costs of the project" (Petitioners' Request at 2). But the asserted "right to know" such costs, standing alone, is not a proper subject for a contention under our rules; rather, the state regulatory authority charged with regulating the electric utilities and protecting the ratepayer may be the proper venue for asserting this right. Had Petitioners offered a reason for needing such information material to the findings a Licensing Board must make⁸ and otherwise explained "why publicly available versions of the application would not be sufficient to provide the basis and specificity for a

avoid the concern that an individual cannot have multiple organizations represent his or her interests in a hearing, the Staff assume[d] for purposes of the SUNSI access determination that either Ms. Dancer or Mr. Wagner would be represented by the SEED Coalition and the other individual would be represented by Public Citizen" (NRC Staff's Reply at 3 n.1). Thus, the NRC Staff's approach in analyzing whether Petitioners satisfied the likelihood of standing criterion was — quite appropriately — not unduly rigid or stringent.

We observe that when future potential parties request access to SUNSI, it may behoove them — and also facilitate the NRC Staff's review process — if they specify the theory under which they seek to satisfy the standing criterion, and briefly stated why they could likely satisfy *each requirement* of that theory.

⁸ *Cf. Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-08-16, 68 NRC 361, 420-22 (2008) (Licensing Board admits a National Environmental Policy Act-related contention regarding the adequacy of the overall cost figures as they relate to the cost component of the alternatives analysis relative to combined renewable/fossil-fuel baseload generation sources).

proffered contention’’ (74 Fed. Reg. at 7936), they would have satisfied the need criterion.

We stress that the requirement to discuss the ‘‘basis . . . for a proffered contention’’ (74 Fed. Reg. at 7936) is not to be equated with the discussion that would be necessary to support an admissible contention. Rather, the discussion need only show why the publicly available information in the application is not sufficient to support the basis and specificity of a proffered contention. In the instant case, Petitioners failed even to suggest the basis of a proffered contention. They simply asserted that they needed information relating to costs because ratepayers had a ‘‘right to know the expected costs of the project’’ (Petitioners’ Request at 2). This falls far short of satisfying the need criterion.

Petitioners’ broad and speculative assertion that their ‘‘case could be harmed’’ if they were denied access to ‘‘literally hundreds of instances in the Environmental Report where information was not included for proprietary reasons’’ (Petitioners’ Request at 2) was likewise inadequate to demonstrate a legitimate need for access to SUNSI. In particular, Petitioners’ expansive assertion was fatally deficient because it: (1) failed to identify the SUNSI to which they sought access; and (2) failed to explain at all why publicly available versions of the application were insufficient to provide the basis and specificity for a proffered contention. *See* 74 Fed. Reg. at 7936.

We recognize that a petitioner’s lack of access to SUNSI may, on occasion, hinder it to some degree in its ability to demonstrate ‘‘why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention’’ (74 Fed. Reg. at 7937). Any such hindrance, however, does not absolve a petitioner from at least endeavoring to address this criterion. A contrary conclusion would improperly convert the current SUNSI disclosure process from one that is based on a petitioner’s ability to show ‘‘legitimate need’’ (*ibid.*) into one where a petitioner’s broad, nonspecific, and speculative assertion of ‘‘need’’ would mandate the wholesale release of SUNSI. Such an outcome would not only be in derogation of the current procedural regime, it would have the perverse effect of conferring more expansive rights on potential parties regarding access to SUNSI than on actual parties.

Finally, in their appeal challenging the NRC Staff’s denial of their SUNSI request, Petitioners mention several additional ‘‘topics of SUNSI information’’ that allegedly should be released (Petitioners’ Appeal at 3). But Petitioners’ broad request for access to topical SUNSI is fatally deficient. The procedure for seeking access to SUNSI does not provide a method for general access to SUNSI or topical access to SUNSI. It provides access to only the information necessary to meaningfully participate in an adjudicatory proceeding, and, further, only grants access to the information that is necessary to provide the basis and specificity of a proffered contention (74 Fed. Reg. at 7936-37). Petitioners’ assertion that access to topical SUNSI is necessary ‘‘to fully understand and effectively research the

many issues of concern that we have identified'' (Petitioners' Appeal at 3) is simply inadequate to demonstrate a legitimate need for access to SUNSI under the governing procedures.

IV. CONCLUSION

For the foregoing reasons, we affirm the NRC Staff's denial of Petitioners' request for access to SUNSI.

Pursuant to 10 C.F.R. § 2.311, a litigant wishing to appeal this decision to the Commission must do so within 10 days after the service of this Order.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD⁹

E. Roy Hawkens, Chairman
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

Dr. Charles N. Kelber
ADMINISTRATIVE JUDGE

Rockville, Maryland
April 20, 2009

Judge Baratta has filed an Additional Comment.

⁹Copies of this Memorandum and Order were sent this date by Internet e-mail to counsel for (1) Petitioners and (2) the NRC Staff.

Additional Comment of Administrative Judge Anthony J. Baratta

I fully concur with the analysis and outcome in this case. I provide this additional comment to express my view that because this is the first challenge to a Staff denial of access to SUNSI information under these new procedures, should these Petitioners file a petition to intervene and be admitted, they should be granted an opportunity — should they wish one — to file a second request for access to SUNSI. If they file such a request, and if they are successful, it would seem to me that the newness of the procedures and lack of experience in its application would be good cause to allow the filing of a new or amended contention in this procedure, consistent with the requirements in 10 C.F.R. § 2.309.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Peter B. Lyons
Dale E. Klein
Kristine L. Svinicki

In the Matter of

**Docket Nos. 52-022-COL
52-023-COL**

PROGRESS ENERGY CAROLINAS, INC.
**(Shearon Harris Nuclear Power
Plant, Units 2 and 3)**

May 18, 2009

CONTENTIONS, ADMISSIBILITY

The Commission's contention admissibility requirements, as set out in 10 C.F.R. § 2.309(f)(1), obligate intervenors to "offer 'specific' contentions on 'material' issues, supported by 'alleged facts or expert opinion.'" Intervenors must provide "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." In evaluating petitions to intervene, licensing boards are "not free to ignore the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)," and contentions that do not satisfy the requirements must be rejected. The Commission defers to the Board's rulings on contention admissibility in the absence of clear error or abuse of discretion.

CONTENTIONS, ADMISSIBILITY

RULEMAKING: REFERRAL OF DESIGN CERTIFICATION ISSUES

As the Commission stated in the New Reactor Policy Statement and reiterated in CLI-08-15, an otherwise admissible contention that raises challenges to information in a design certification rulemaking should be referred to the Staff

for resolution in the rulemaking. This is a two-step process requiring, first, an admissibility determination, and second, a determination as to whether an issue should be referred to the Staff for resolution in the design certification rulemaking.

CONTENTIONS, ADMISSIBILITY

CONTENTIONS OF OMISSION: MOOTNESS; BURDEN OF PROOF

It is true that in the case of a genuine contention of omission the applicant may be able to cure the omission by supplying the missing information, thus rendering the contention moot. But the initial burden of showing whether the contention meets the Commission's admissibility standards still lies with the petitioner.

RULEMAKING: REFERRAL OF DESIGN CERTIFICATION ISSUES

A board must thoroughly analyze whether the issues raised in a contention — assuming the contention is admissible — belong in the design certification rulemaking rather than in an adjudication. In this proceeding, the Board mis-allocated the applicable regulatory obligations when it referred the list of nine “omissions” to the Staff to “sort out” in the context of the design certification rulemaking. Indeed, the Board's choice to make the referral, without sorting it first, implicitly acknowledges that it has not examined each “omission” itself in order to determine whether it encompasses a generic design issue or a site-specific issue appropriate for consideration in an individual application. The universe of potential contentions in a combined license proceeding includes site-specific contentions that do not implicate issues appropriately considered in a design certification rulemaking; rote referral of contentions that are generally related to facility design to the Staff for resolution in rulemaking is not appropriate.

RULES OF PROCEDURE: MOTIONS FOR RECONSIDERATION, BASIS; TIMELINESS

Our rules do not provide for multiple requests for reconsideration of the same decision, and, even if they did, the arguments in a petition in a separate matter — which the petitioner in this proceeding now adopts but could have made earlier — do not provide a compelling substantive basis for reconsidering CLI-08-15. Nor does the pleading in the separate matter reset the clock for purposes of calculating timeliness.

RULES OF PROCEDURE: COMBINED LICENSE PROCEEDING

RULEMAKING: REFERRAL OF DESIGN CERTIFICATION ISSUES

The Commission's rules permit the filing of combined license applications in advance of design certifications. The design certification rulemaking and individual combined license adjudicatory proceedings may proceed simultaneously, and issues raised in an adjudicatory proceeding that are appropriately addressed in the generic design certification rulemaking are to be referred to the rulemaking for resolution.

RULES OF PROCEDURE: MOTIONS FOR ABEYANCE, BASIS

The burden of participating in a proceeding is not a harm that can form the basis for holding a proceeding in abeyance. "[I]t has long been a 'basic principle that a person who invokes the right to participate in an NRC proceeding also voluntarily accepts the obligations attendant upon such participation.'" These obligations include participation within the schedule established for the proceeding despite the burden on a participant's time and resources and despite uncertainties engendered by the potential for new information.

MEMORANDUM AND ORDER

This appeal concerns the application of Progress Energy Carolinas, Inc. (Progress Energy) for a combined license (COL) for two new nuclear generation units at its existing Shearon Harris site in North Carolina. Progress Energy¹ and the NRC Staff² both appeal from the Licensing Board's decision to admit one contention proposed by the North Carolina Waste Awareness and Reduction Network (NC WARN or Petitioner).³ NC WARN opposes both appeals.⁴ For the reasons provided below, we grant the appeals and remand the proceeding to the Board for reassessment of the admissibility of NC WARN's contention.

We also consider a motion by NC WARN to hold the proceeding in abeyance pending the completion of the NRC's rulemaking on the Westinghouse Electric

¹Progress Energy's Appeal of the Atomic Safety and Licensing Board's Decision Admitting the North Carolina Waste Awareness and Reduction Network (Nov. 10, 2008) (Progress Energy Appeal).

²NRC Staff Notice of Appeal of LBP-08-21, Memorandum and Order (Ruling on Standing and Contention Admissibility), and Accompanying Brief (Nov. 10, 2008) (Staff Notice of Appeal); NRC Staff's Brief in Support of Appeal from LBP-08-21 (Nov. 10, 2008) (Staff Appeal).

³LBP-08-21, 68 NRC 554 (2008).

⁴Response by NC WARN in Opposition to NRC Staff and Progress Energy Appeals from LBP-08-21 (Nov. 20, 2008).

Corporation (Westinghouse) AP1000 advanced pressurized water power reactor certified design.⁵ Progress Energy⁶ and the Staff⁷ oppose NC WARN's motion. NC WARN replied to the Progress Energy and Staff oppositions to its motion.⁸ We deny the motion to hold the proceeding in abeyance, and also deny the motion for reconsideration of CLI-08-15 embedded therein.

I. BACKGROUND

NC WARN submitted ten proposed contentions in its petition to intervene.⁹ In the one admitted contention, Contention TC-1 (AP1000 Certification), NC WARN claimed:

The [COL application] is incomplete because many of the major safety components and procedures at [the] proposed [Shearon] Harris reactors are only conditional at this time. The [COL application] adopts by reference a design and operational procedures that have not been certified by the NRC or accepted by the applicant. Modifications to the design or operational procedures for the AP1000 Revision 16 would require changes in Progress Energy's application, the final design and operational procedures. Regardless whether the components are certified or not, the [COL application] cannot be reviewed without the full disclosure of all designs and operational procedures.¹⁰

NC WARN explained that:

The validity of this contention does not depend on whether the ultimate design is certified or not; the [COL application] is incomplete and cannot be reviewed by the NRC [S]taff or affected petitioners. Specifically at the proposed [Shearon] Harris reactors, the application does not contain the following:

- a. The final design of the reactor containment.

⁵ Motion by NC WARN to Hold the Harris Combined License Application Adjudication in Abeyance Pending Completion of Rulemaking on the Standard Design Certification Application for the AP1000 Reactor Design (Nov. 13, 2008) (NC WARN Abeyance Motion).

⁶ Progress Response to the North Carolina Waste Awareness and Reduction Network Second Motion to Hold Proceeding in Abeyance (Nov. 24, 2008) (Progress Energy Response to Abeyance Motion).

⁷ NRC Staff Answer to "Motion by NC WARN to Hold the Harris Combined License Application Adjudication in Abeyance Pending Completion of Rulemaking on the Standard Design Certification Application for the AP1000 Reactor Design" (Nov. 24, 2008) (Staff Answer to Abeyance Motion).

⁸ Reply by NC WARN to Responses by Progress and NRC Staff in Opposition to NC WARN's Motion to Hold Proceeding in Abeyance (Nov. 29, 2008) (NC WARN Reply Re Abeyance Motion).

⁹ Petition for Intervention and Request for Hearing by the North Carolina Waste Awareness and Reduction Network (Aug. 4, 2008) (Intervention Petition).

¹⁰ Intervention Petition at 13.

- b. The control room set up and operator decision-making procedures.
- c. Seismic qualifications for various components of the AP1000 reactors.
- d. The establishment of fire protection areas.
- e. Technology requirements for heat removal.
- f. Human factors engineering design throughout the plant.
- g. Plant personnel requirements.
- h. Alarm systems throughout the plant.
- i. Plant-wide requirements for pipes and conduits.

In addition to the Westinghouse-acknowledged deficiencies in the sump and design instrumentation and controls, it is clear that the missing components and procedures are crucial in assessing the safety and impacts of the proposed reactors.¹¹

According to the Board, NC WARN “set forth facts indicating specific omissions from the [COL application] that fall within the scenario contemplated by the Commission”¹² in its Final Policy Statement on the Conduct of New Reactor Licensing Proceedings¹³ and in an earlier decision in this proceeding interpreting the New Reactor Policy Statement.¹⁴ The Board found that Contention TC-1 was “not a challenge to the AP1000 design review process, but rather a challenge to the Application itself.”¹⁵ The Board found that Progress Energy and the NRC Staff both “failed to provide information regarding whether or not the asserted omitted material was indeed omitted in the [COL application], nor did either provide information indicating whether such allegedly omitted information indeed is required to be in a [COL application].”¹⁶ Because the asserted omissions were uncontroverted, the Board found them admissible.¹⁷

The Board limited the contention to the nine identified omissions listed above, and referred each of these omissions to the Staff “for resolution in the design certification rulemaking.”¹⁸ In making this referral, the Board also gave the Staff the task of sorting the asserted omissions:

¹¹ *Id.* at 16.

¹² LBP-08-21, 68 NRC at 563.

¹³ 73 Fed. Reg. 20,963 (Apr. 17, 2008) (New Reactor Policy Statement).

¹⁴ CLI-08-15, 68 NRC 1 (2008).

¹⁵ LBP-08-21, 68 NRC at 563.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

Although certain asserted omissions appear to [the Board] to be with respect to information which would not ordinarily be required to be set out in the [COL application], in the absence of information or pleadings on that topic, [the Board] refer[red] the entire list to the Staff with confidence that [the] Staff will sort out those matters in their consideration in the design certification rulemaking.¹⁹

The Board held “any hearing on this contention in abeyance pending the results of the Staff’s review and consideration of those matters in the design certification rulemaking.”²⁰

II. LEGAL FRAMEWORK

In our New Reactor Policy Statement, we provided direction regarding the appropriate disposition of contentions on design matters proffered in COL proceedings, where a referenced design certification application is pending:

[A] licensing board should treat the NRC’s docketing of a design certification application as the Commission’s determination that the design is the subject of a general rulemaking. We believe that a contention that raises an issue on a design matter addressed in the design certification application should be resolved in the design certification rulemaking proceeding, and not the COL proceeding. Accordingly, in a COL proceeding in which an application references the docketed design certification application, the licensing board should refer such a contention to the [S]taff for consideration in the design certification rulemaking, and hold that contention in abeyance, if it is otherwise admissible. Upon adoption of a final design certification rule, such a contention should be denied.²¹

While the Commission expected design certification proceedings normally to precede COL proceedings, our rules provide:

An applicant for a construction permit or a combined license may, at its own risk, reference in its application a design for which a design certification application has been docketed but not granted.²²

“If an applicant later decides not to reference a certified design, and instead proceeds with a site-specific design, any admissible issues would have to be

¹⁹ *Id.*, 68 NRC at 563.

²⁰ *Id.* at 564.

²¹ 73 Fed. Reg. at 20,972.

²² 10 C.F.R. § 52.55(c).

addressed in the licensing adjudication.”²³ If a petitioner believes that a COL application is incomplete, the petitioner may file a contention claiming that the application is deficient.²⁴

Under our contention admissibility rules:

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) . . . [P]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.²⁵

III. DISCUSSION

Our contention admissibility requirements, as set out in 10 C.F.R. § 2.309(f)(1), obligate intervenors to “offer ‘specific’ contentions on ‘material’ issues, supported by ‘alleged facts or expert opinion.’ ”²⁶ Intervenors must provide “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.”²⁷ In evaluating petitions to intervene, licensing boards are “not free to ignore the contention admissibility requirements of 10 C.F.R.

²³ CLI-08-15, 68 NRC at 4.

²⁴ *Id.* at 2.

²⁵ See 10 C.F.R. § 2.309(f)(1).

²⁶ *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 808 (2005).

²⁷ *USEC Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 437 (2006), citing *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991).

§ 2.309(f)(1),”²⁸ and contentions that do not satisfy the requirements must be rejected.²⁹ We defer to the Board’s rulings on contention admissibility in the absence of clear error or abuse of discretion.³⁰

A. Progress Energy and Staff Appeals

In its appeal, Progress Energy argues that Contention TC-1 is not admissible because it does not satisfy the standards for a contention of omission, and the Board erred in presuming that it did. Alternatively, Progress Energy argues, even if Contention TC-1 were admissible, the Board misapplied Commission policy when it referred the contention to the Staff for review in the AP1000 design certification amendment rulemaking because the issues raised are not appropriate for resolution in the design certification rulemaking.³¹ The NRC Staff argues, first, that the contention is an impermissible challenge to our regulations — specifically, to 10 C.F.R. § 52.55(c), which allows applicants to submit combined license applications in advance of design certification, albeit at the applicant’s risk. The Staff argues, second, that NC WARN failed to comply with 10 C.F.R. § 2.309(f)(1)(vi) because a contention of omission cannot be admissible unless each failure to include relevant information is identified with specificity and with supporting reasons.³²

As we stated in the New Reactor Policy Statement and reiterated in CLI-08-15, an otherwise admissible contention that raises challenges to information in a design certification rulemaking should be referred to the Staff for resolution in the rulemaking.³³ This is a two-step process requiring, first, an admissibility determination, and second, a determination as to whether an issue should be referred to the Staff for resolution in the design certification rulemaking. As discussed below, we find that the Board erred in referring Contention TC-1 to the Staff without making an appropriate contention admissibility determination.

Citing the New Reactor Policy Statement directive that contentions raising design matters should be addressed in the design certification rulemaking proceed-

²⁸ *Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 73 (2009), citing *Palo Verde*, CLI-91-12, 34 NRC at 155-56.

²⁹ *Palo Verde*, CLI-91-12, 34 NRC at 155-56.

³⁰ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 234 (2008); see also *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 119 (2009); *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 104 (2007); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006).

³¹ Progress Energy Appeal at 3-4.

³² Staff Appeal at 6-7.

³³ 73 Fed. Reg. at 20,972; CLI-08-15, 68 NRC at 3-4.

ing, the Board concluded that NC WARN had “set forth facts indicating specific omissions from the [COL application] that fall within the scenario contemplated by the Commission.”³⁴ In other words, *before* deciding whether the contention was admissible, the Board found that the contention was one that should be referred to the Staff for resolution as part of the pending rulemaking. With this conclusion as its apparent premise, the Board recast NC WARN’s contention as a “contention of omission.” Then, the Board found that because Progress Energy and the Staff did not controvert NC WARN’s asserted omissions, the contention was admissible.

The Staff maintains that, in finding the contention admissible, the Board improperly shifted the burden to demonstrate contention admissibility from the Petitioner to the Applicant and the Staff. We agree with the Staff’s reasoning. It is true that in the case of a genuine contention of omission the applicant may be able to cure the omission by supplying the missing information, thus rendering the contention moot. But the initial burden of showing whether the contention meets our admissibility standards still lies with the petitioner.³⁵ As a result of shifting this obligation away from NC WARN, the Board’s ruling does not address the arguments and the support NC WARN provided for Contention TC-1, as is required by 10 C.F.R. § 2.309(f)(1).³⁶

Even were we to disregard the Board’s burden-shifting, the Board’s conclusion that the contention was uncontroverted is, in our view, in error. Progress Energy argues that the list of nine items that the Board characterizes as “omissions” is in reality a paraphrase of items listed in a table that is part of the AP1000 design certification rule.³⁷ Thus, according to Progress Energy, all nine items are explicitly part of the AP1000 design certification rule. Further, because a COL

³⁴ LBP-08-21, 68 NRC at 563.

³⁵ See *Palo Verde*, CLI-91-12, 34 NRC at 155.

³⁶ We note, for example, that portions of the contention appear to be impermissibly speculative. To the extent the contention concerns future changes to the COL application that may come about as a result of amendments to the certified design, it is inadmissible. Cf. *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-14, 55 NRC 278, 294 (2002) (“[A]s a general matter, contentions that are based on projected changes to a license, not currently before the NRC in any proceeding or application, are not sufficient to support admission of a contention. An NRC proceeding considers the application presented to the agency for consideration and not potential future amendments that are a matter of speculation at the time of the ongoing proceeding”). If the design certification rulemaking amendment application results in updates to Progress Energy’s combined license application, new contentions may be filed, subject to the requirements of 10 C.F.R. §§ 2.309(c) and 2.309(f)(2).

³⁷ The table is attached as part of Appendix A to the Progress Energy Appeal (AP1000 Design Control Document, Table 1-1, Index of AP1000 Tier 2 Information Requiring NRC Approval for Change).

incorporates both the design certification rule and the amendment application,³⁸ the Board erred in concluding that these nine items were omitted from the application. Progress Energy asserts that it made this point in pleadings before the Board (even though it did not treat Contention TC-1 as a contention of omission),³⁹ and we agree that the Board erred when it stated that Progress Energy failed to address whether the nine items were included in the application.

We also are not persuaded that the Board thoroughly analyzed whether the issues raised in NC WARN Contention TC-1 — assuming it is admissible — belong in the design certification rulemaking rather than in this adjudication. We agree with the Staff that the Board misallocated the applicable regulatory obligations when it referred the list of nine “omissions” to the Staff to “sort out” in the context of the design certification rulemaking. Indeed, the Board’s choice to make the referral, without sorting it first, implicitly acknowledges that it has not examined each “omission” itself in order to determine whether it encompasses a generic design issue or a site-specific issue appropriate for consideration in an individual application.

Progress Energy argues that the contention is site-specific, in that it relates to the use of the AP1000 design at the Shearon Harris site and to the possibility that future changes to the AP1000 design would require changes to Progress Energy’s combined license application. According to Progress Energy, the examples NC WARN provided of consequences that flow from its contention — such as the argued inability to perform a probabilistic risk assessment for the Shearon Harris site and the argued inability to determine severe accident mitigation alternatives (SAMAs) in the environmental analysis of the site — demonstrate that the contention is a site-specific complaint about matters that cannot be resolved in the rulemaking context. NC WARN’s own discussion of its contention lends support to this view. NC WARN argues that the design of many safety components and procedures is still in flux, making it difficult to perform a complete safety analysis: “[w]ithout having the current configuration, design and operating procedures in

³⁸ See Cover Letter to R. William Borchardt, Director, Office of New Reactors, from James Scarola, Senior Vice President and Chief Nuclear Officer, Progress Energy, Subject: Application for Combined License for Shearon Harris Nuclear Power Plant Units 2 and 3 — NRC Project Number 738 (Feb. 18, 2008) (ADAMS Accession No. ML080580078) (“This COL application incorporates by reference Appendix D to 10 [C.F.R.] Part 52, as amended by Westinghouse Electric Company’s AP1000 Design Control Document (DCD), Revision 16 which was submitted to the NRC on May 26, 2007, and Westinghouse Technical Report APP-GW-GLR-134, ‘AP1000 DCD Impacts to Support [COL Application] Standardization,’ Revision 3, which was submitted on January 14, 2008”). This treatment (incorporation by reference) is consistent with our rules when, as here, an applicant chooses to reference a standard design. See 10 C.F.R. §§ 52.55(c), 52.73(a).

³⁹ See Progress Energy Appeal at 15, citing Progress Energy’s Answer Opposing Petition for Intervention and Request for Hearing by the North Carolina Waste Awareness and Reduction Network (Aug. 29, 2008) at 14.

the application, the risk assessment and SAMAs cannot be determined. Until major components are incorporated into the [COL application] for a full review, much of the interaction between the various components cannot be resolved.’⁴⁰ The universe of potential contentions in a combined license proceeding includes site-specific contentions that do not implicate issues appropriately considered in a design certification rulemaking; rote referral of contentions that are generally related to facility design to the Staff for resolution in rulemaking is not appropriate.

We therefore remand consideration of Contention TC-1 to the Board, and direct it to reassess the admissibility of Contention TC-1 based upon the contention admissibility criteria in 10 C.F.R. § 2.309(f)(1). If the Board concludes that NC WARN’s contention is admissible, then we direct it to determine whether all or part of the contention is appropriate for resolution in the AP1000 design certification amendment rulemaking.

B. NC WARN Motion to Hold the Proceeding in Abeyance

1. Embedded Motion for Reconsideration

NC WARN’s motion to hold the proceeding in abeyance includes within it a motion for reconsideration of CLI-08-15. In CLI-08-15 we denied a motion by NC WARN that asked for immediate suspension of the hearing notice for this proceeding pending completion of the Commission’s design certification of the AP1000, including Revision 16 and any resulting modifications incorporated into the design of and the operational practices at the proposed new nuclear generation units at the Shearon Harris site.⁴¹ In its instant motion to hold the proceeding in abeyance, NC WARN asks us to reconsider our decision in CLI-08-15 based upon the arguments of a different petitioner in an unrelated matter,⁴² and on the fact that Westinghouse submitted to the NRC Revision 17 of its AP1000 design control document. According to NC WARN, submission of Revision 17 means that “there is now no estimated completion date for the certification of the

⁴⁰ Intervention Petition at 17.

⁴¹ Motion to Immediately Suspend Hearing Notice and Request for Expedited Consideration by North Carolina Waste Awareness and Reduction Network (June 23, 2008) (NC WARN Motion to Suspend). The NC WARN Motion to Suspend also asked that the hearing notice be suspended pending Progress Energy’s responses to “data requests and other open schedule issues concerning Harris Lake and its water levels, alternative water sources, the impacts on aquatic species and transportation impacts.” NC WARN Motion to Suspend at 1. The NC WARN Abeyance Motion does not raise this issue.

⁴² Texans for a Sound Energy Policy’s [TSEP’s] Petition to Hold Docketing Decision and/or Hearing Notice for Victoria Combined License Application in Abeyance Pending Completion of Rulemaking on Design Certification Application for Economically Simplified Boiling Water Reactor (Nov. 3, 2008) (TSEP Petition).

AP1000 reactors’’ and because ‘‘[t]he proposed [Shearon] Harris reactors remain tied to Revision 16,’’ ‘‘the burden on NC WARN to achieve any semblance of participation in the [COL application] adjudication is nearing impossibility until and unless the Commission holds the adjudication in abeyance until the AP1000 design is completed.’’⁴³

In response, Progress Energy and the Staff make a number of procedural arguments. Progress Energy argues that the request for reconsideration of CLI-08-15 is impermissible because it is a second request for reconsideration of the same issue.⁴⁴ The Staff argues that the embedded second request for reconsideration mirrors the first in its failure to seek leave to request reconsideration and should be denied on that procedural ground, just as the first reconsideration request was denied.⁴⁵ NC WARN counters that its motion was submitted in a timely manner because NC WARN wished to preserve its ability to argue that the Shearon Harris proceeding should be stayed if the Commission decides in TSEP’s favor⁴⁶ — in other words, NC WARN appears to argue that the filing of the TSEP Petition (or perhaps the Commission’s decision regarding that petition) is the initiating event for timeliness purposes.⁴⁷ Our rules do not provide for multiple requests for reconsideration of the same decision, and, even if they did, the arguments in the TSEP Petition — which NC WARN now adopts but could have made earlier — do not provide a compelling substantive basis for reconsidering CLI-08-15. Nor does TSEP’s pleading reset the clock for purposes of calculating timeliness.⁴⁸ We deny the motion for reconsideration.

⁴³ NC WARN Abeyance Motion at 2.

⁴⁴ Progress Response to Abeyance Motion at 4. Progress also raises other procedural arguments, noting that NC WARN failed to request leave to file the motion, and that the motion is out of time because CLI-08-15 was issued on July 23, 2008. *Id.*

⁴⁵ Staff Answer to Abeyance Motion at 2 (unnumbered), citing Order (Sept. 11, 2008) (unpublished) (ADAMS Accession No. ML082550620).

⁴⁶ NC WARN Reply Re Abeyance Motion at 2.

⁴⁷ We note that the Secretary of the Commission responded to the TSEP Petition in a December 30, 2008 letter. The Secretary informed TSEP that the applicant in that proceeding, Exelon Nuclear Texas Holdings, LLC, notified the Staff that it expects to designate an alternative reactor technology for the Victoria County project. As a result, the Staff suspended review of the application and no hearing notice has issued. *See* Letter from A.L. Bates, Acting Secretary of the Commission, to D. Curran and J. Blackburn (Dec. 30, 2008) (ADAMS Accession No. ML083650299).

⁴⁸ Section 2.323(e) governs motions for reconsideration and provides:

Motions for reconsideration may not be filed except upon leave of the presiding officer or the Commission, upon a showing of compelling circumstances, such as the existence of a clear and material error in a decision, which could not have reasonably been anticipated, that renders the decision invalid. A motion must be filed within ten (10) days of the action for which reconsideration is requested. The motion and any responses to the motion are limited to ten (10) pages.

(Continued)

2. *Motion to Hold Proceeding in Abeyance*

NC WARN asks that we hold this proceeding in abeyance “pending [the] completion by the NRC of a rulemaking on the standard design certification for the AP1000 design.”⁴⁹ NC WARN argues “that the TSEP Petition shows that it is unlawful for the Commission to conduct [COL application] adjudications and design certification rulemakings simultaneously in any proceeding for the licensing of a new nuclear power plant.”⁵⁰ We reject this argument. As we held in CLI-08-15, our rules permit the filing of combined license applications in advance of design certifications. The design certification rulemaking and individual COL adjudicatory proceedings may proceed simultaneously, and issues raised in an adjudicatory proceeding that are appropriately addressed in the generic design certification rulemaking are to be referred to the rulemaking for resolution.

NC WARN also argues that the completion date for the certification of the AP1000 is uncertain and that because of this, “the burden on NC WARN to achieve any semblance of participation in the [COL application] adjudication is nearing impossibility until and unless the Commission holds the adjudication in abeyance until the AP1000 design is completed.”⁵¹ We reject this argument as well. The burden of participating in a proceeding is not a harm that can form the basis for holding a proceeding in abeyance. “[I]t has long been a ‘basic principle that a person who invokes the right to participate in an NRC proceeding also voluntarily accepts the obligations attendant upon such participation.’”⁵² These obligations include participation within the schedule established for the proceeding despite the burden on a participant’s time and resources and despite uncertainties engendered by the potential for new information.⁵³

Moreover, our remand to the Board for reassessment of the admissibility of NC WARN’s Contention TC-1 may or may not result in a contested proceeding and the Board may or may not find elements of the contention, if admitted, appropriate for referral to the design certification amendment rulemaking. We deny the motion to hold the proceeding in abeyance.

We note that NC WARN has not asserted changed circumstances that could not previously have been brought to us, nor do we find any such circumstances. See *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-7, 29 NRC 395, 398 n.8 (1989).

⁴⁹ NC WARN Abeyance Motion at 1.

⁵⁰ *Id.* at 2.

⁵¹ NC WARN Abeyance Motion at 2.

⁵² *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 338-39 (1999), citing *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1048 (1983).

⁵³ *Cf. Oconee*, CLI-99-11, 49 NRC at 338-39 (petitioners’ request to “reschedule” a license renewal proceeding until after resolution of all Staff requests for additional information was denied).

IV. CONCLUSION

For the foregoing reasons, we *grant* the appeals and *remand* the proceeding to the Board for reassessment of the admissibility of Contention TC-1. We *deny* the motion to hold the proceeding in abeyance, and also *decline* to reconsider our ruling in CLI-08-15.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 18th day of May 2009.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Peter B. Lyons
Dale E. Klein
Kristine L. Svinicki

In the Matter of

Docket No. 40-8943-MLA
(License Renewal)

CROW BUTTE RESOURCES, INC.
(In Situ Leach Facility, Crawford,
Nebraska)

May 18, 2009

STANDING (NATIVE AMERICAN TRIBES)

The Board appropriately followed the U.S. Supreme Court's ruling that treaties granting ownership of the Black Hills to the Sioux Nation had been abrogated by act of Congress and are no longer in effect. LBP-08-24, 68 NRC 691, 711-12 (2008), citing *United States v. Sioux Nation of Indians*, 448 U.S. 371, 382-83, 410-11 (1980). As the treaty was the only grounds supporting the Indian group's claim of standing, the Board correctly found that the Indian group did not have standing as a party to this proceeding.

STANDING

The Commission would not disturb the Board's ruling that an Indian Tribe had demonstrated standing due to interest in cultural artifacts onsite that could be affected by a proposed licensing action.

STANDING

The Commission declined to impose a requirement that petitioners show

a nexus between interest upon which standing is based and the substance of petitioners' proposed contentions.

STANDING: ORGANIZATIONAL

Affidavits by an individual with standing authorizing an organization to represent him must be filed with specific reference to the proceeding in which standing is sought for the organization.

STANDING

In a materials licensing proceeding, petitioners have the burden to show a "specific and plausible means" whereby the licensing decision may harm them. Where there is no "obvious potential" for offsite harm, the petitioner must show a "specific and plausible means of how the challenged action may harm him or her." *USEC Inc. (American Centrifuge Plant)*, CLI-05-11, 61 NRC 309, 311-12 (2005).

CONTENTIONS: ADMISSIBILITY

Applicant's arguments that petitioners' claims were unfounded in fact went to the merits of the contention and did not show that there was no genuine dispute over the substance of the contention.

NATIONAL HISTORIC PRESERVATION ACT (NHPA)

Petitioners' contention that NRC Staff had not consulted with the affected Indian tribe, as required by the NHPA, was premature. The Board erred in admitting the contention prior to the time for the Staff to act.

CONTENTIONS: ADMISSIBILITY

Whether the petitioner has proved its claim is not the issue at the contention pleading stage. The Board simply has to find that each of the elements of contention admissibility is satisfied, and need not weigh the merits of the petitioner's arguments.

CONTENTIONS: ADMISSIBILITY

To raise an admissible issue, "[a]llegations of management improprieties . . . must be of more than historical interest." *Georgia Institute of Technology*

(Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 120 (1995).

CONTENTIONS: ADMISSIBILITY

The Board erred in admitting a contention concerning the economic value of wetlands without requiring petitioners to demonstrate that the proposed licensing action or “no action” alternative would have any effect on wetlands.

ATOMIC ENERGY ACT

There is no statutory or regulatory bar, per se, on a foreign-owned or -controlled company holding a source materials license, whether as a licensee or as a parent entity.

CONTENTIONS: ADMISSIBILITY

The Board erred in admitting a contention on adverse health effects of exposure to arsenic, where petitioners had not laid a foundation by showing that (1) the applicant’s operation has released, and will continue to release, arsenic into the groundwater; and (2) arsenic released from applicant’s operation has already reached petitioners; and (3) petitioners and others living in these areas have been exposed to arsenic released from applicant’s operation sufficient to develop the adverse health effects about which petitioners are concerned. Without more, petitioners’ arguments were speculative, and did not form the basis for a litigable contention.

MEMORANDUM AND ORDER

This Order responds to appeals of two Board decisions in this license renewal proceeding: an initial decision granting a hearing to several petitioners, LBP-08-24,¹ and a subsequent decision admitting a late-filed contention concerning the effects of arsenic, LBP-08-27.² The NRC Staff and the Applicant, Crow Butte Resources, Inc. (Crow Butte), have appealed LBP-08-24 on the grounds that the

¹ LBP-08-24, 68 NRC 691 (2008).

² LBP-08-27, 68 NRC 951 (2008).

hearing requests should have been denied entirely.³ Petitioner Oglala Delegation of the Great Sioux Nation (Delegation) has appealed the Board's denial of party status in LBP-08-24.⁴ A group of petitioners, designated the "Consolidated Petitioners," has filed a petition for review of the Board's rejection of several proposed contentions.⁵ Finally, the NRC Staff and Crow Butte have also appealed the Board's ruling admitting a late-filed contention relating to the impacts of arsenic.⁶

As discussed further below, we deny the Delegation's appeal, and grant in part and deny in part the Staff's and Crow Butte's appeals. We also deny, without prejudice, Consolidated Petitioners' request for interlocutory review of the Board's rejection of certain contentions.

I. BACKGROUND

Crow Butte operates an *in situ* leach (ISL) uranium recovery operation in Nebraska. In the instant proceeding, it seeks to renew its materials license for 10 years. In a separate proceeding pending before another Board, Crow Butte is seeking to expand its operation to a satellite facility approximately 5 to 8 miles away called the North Trend Expansion Area (NTEA). The NTEA application was filed prior to the license renewal application, and that Board issued a ruling on standing and contentions prior to the two orders now under appeal relating to the license renewal application.⁷ Although the NTEA proceeding is a separate matter, that Board's rulings are relevant to several issues raised in this proceeding.

Several of the same petitioners sought a hearing in the license renewal proceeding who sought — and were granted — a hearing in the NTEA proceeding. The "Consolidated Petitioners" in this proceeding — a group of individuals and organizations sharing the same counsel — include Owe Aku/Bring Back the Way (Owe Aku), Deborah White Plume, and Western Nebraska Resources Council (WNRC), all of which were found to have standing in the NTEA proceeding.⁸

³ NRC Staff's Notice of Appeal of LBP-08-24, Licensing Board's Order of November 21, 2008, and Accompanying Brief (Dec. 10, 2008) (Staff Appeal); Crow Butte Resources' Notice of Appeal of LBP-08-24 (Dec. 10, 2008).

⁴ Petitioner's Election to Participate and Notice of Appeal (Dec. 10, 2008) (Delegation Appeal).

⁵ Consolidated Petitioners' Brief in Support of Appeal from LBP-08-24 (Dec. 10, 2008) (Consolidated Petitioners' Appeal).

⁶ Crow Butte Resources' Notice of Appeal of LBP-08-27 (Dec. 18, 2008) (Crow Butte Arsenic Appeal); NRC Staff's Notice of Appeal of Licensing Board's Order of December 10, 2008 (LBP-08-27), and Accompanying Brief (Dec. 22, 2008) (Staff Arsenic Appeal).

⁷ *Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241 (2008).

⁸ *Id.*, 67 NRC at 344. The standing determinations in the NTEA proceeding are the subject of pending appeals.

The Board here similarly found these petitioners to have standing, and also found standing for petitioners Beatrice Long Visitor Holy Dance, Thomas Kanatakeniate Cook,⁹ Loretta Afraid of Bear Cook, the Afraid of Bear/Cook Tiwahe (family), Joe American Horse, Sr., and the American Horse Tiospaye (extended family).¹⁰

The Board also found that the Oglala Sioux Tribe (Tribe) has standing as a party, but that the Delegation does not.¹¹ The Board admitted five of the Tribe's proposed contentions, all of which concerned the possible environmental impacts from the ISL uranium recovery operation.

Consolidated Petitioners proposed 23 contentions. The Board admitted Consolidated Petitioners' Environmental Contention E, relating to the economic value of affected wetlands,¹² and Technical Contention F, which claimed that the application failed to include recent research related to geology in the area of the ISL operation.¹³ The Board also admitted, in part, Consolidated Petitioners' Miscellaneous Contention G, relating to Crow Butte's asserted concealment of its foreign ownership;¹⁴ and Miscellaneous Contention K, relating to whether Crow Butte's ownership by a foreign parent corporation is "inimical" to the common defense and security. The Board also determined that the issue of foreign ownership should be "segregated from the other contentions and briefed on the merits up front."¹⁵ The Board denied Consolidated Petitioners' remaining nineteen proposed contentions.¹⁶

⁹Thomas Kanatakeniate Cook was found not to have standing in the NTEA proceeding. *Id.*, 67 NRC at 288.

¹⁰LBP-08-24, 68 NRC 698.

¹¹*Id.* In total, therefore, the Consolidated Petitioners in this proceeding are comprised of Owe Aku, Debra White Plume, WNRC, Beatrice Long Visitor Holy Dance, Thomas Kanatakeniate Cook, Loretta Afraid of Bear Cook, the Afraid of Bear/Cook Tiwahe, Joe American Horse, Sr., and the American Horse Tiospaye.

¹²LBP-08-24, 68 NRC 734-36.

¹³*Id.* at 738-40.

¹⁴*Id.* at 744-49.

¹⁵*Id.* at 754.

¹⁶*Id.* at 729-31. The remainder of Consolidated Petitioners' proposed contentions relate to climate change (Environmental Contention C and Technical Contention C), cultural impacts of geochemical changes to the water (Environmental Contention D), public health impacts of water contamination (Technical Contention B), "failure to follow statistical analysis protocols" (Technical Contention D), failure to use "best available technology" (Technical Contention E), failure to analyze effects of possible excursions and radiological emissions (Technical Contention G). The Board also rejected proposed contentions relating to the Applicant's failure to consult tribal leaders concerning the NTEA application (Miscellaneous Contention A); and Miscellaneous Contentions B, C, D, E, and F — all relating to purported Indian rights — for which the Board said Consolidated Petitioners "wholly failed to provide any discussion" or support. *Id.* at 741-44. The Board also rejected proposed Miscellaneous Contention H, wherein Consolidated Petitioners claimed generally that the Applicant
(Continued)

Consolidated Petitioners have appealed the rejection of eleven of their proposed contentions.

II. DISCUSSION

The Commission defers to a Board's rulings on standing and contention admissibility in the absence of clear error or abuse of discretion.¹⁷ Keeping this standard in mind, we consider the appeals of the various participants.

A. Standing

Both the Staff and Crow Butte contend that none of the petitioners has demonstrated standing to participate in a hearing on the license renewal application at issue.

1. Native American Entities

Two Native American groups, the Oglala Sioux Tribe and the Oglala Delegation of the Great Sioux Nation, sought to intervene, claiming standing based on treaty rights and on their interests in cultural resources located on the Crow Butte site.

a. Treaty Claims

Both the Tribe and the Delegation claim standing under now-abrogated 19th century treaties.¹⁸ Under the terms of the 1851 and 1868 Fort Laramie Treaties, a large portion of the Great Plains was recognized as the territory and property of the Sioux Indian tribe, including — according to the Delegation — the land

failed to provide updated information, and Miscellaneous Contention I, wherein they claimed generally that the Applicant failed to include recent research (*see id.* at 749-50). The Board found Miscellaneous Contention J, which claimed that a page was missing from the petitioners' copy of the application, to be moot. *Id.* at 750. The Board also rejected Miscellaneous Contention L (surety bond too low to account for post-decommissioning monitoring).

¹⁷ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 234 (2008); *see also Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 119 (2009); *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 104 (2007); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006).

¹⁸ LBP-08-24, 68 NRC at 710-11.

on which Crow Butte's operation now sits.¹⁹ The Delegation continues to claim actual ownership of the land on which Crow Butte operates by virtue of those treaties.

The Board rejected the Tribe's and Delegation's claims under the 1868 Fort Laramie Treaty, relying on a Supreme Court decision finding that Congress had abrogated that treaty and that it was, therefore, no longer in effect.²⁰ "As a consequence," the Board found, "any claims to ownership of the land upon which the Crow Butte mining site sits cannot support standing here."²¹

The Board correctly relied on the Supreme Court's ruling that the Fort Laramie Treaty is no longer in effect. As the treaty was the only basis on which the Delegation based standing, the Board correctly found that the Delegation does not have standing as a party in this proceeding. While the Delegation's brief on appeal offers interesting historical insights, it offers no basis by which the Commission could disregard the Supreme Court's holding with respect to Congress's power to break a treaty.²² We therefore deny the Delegation's appeal.

The Board, however, appropriately found that the Delegation may participate as an interested governmental entity in this proceeding, to which the Staff and Crow Butte did not object when asked.²³ The Delegation has elected to so participate.²⁴

b. Interest in Cultural Resources

The Board found that the Tribe demonstrated standing based on its interest in preserving cultural resources or artifacts that are on the Crow Butte site.²⁵ It is undisputed that the Crow Butte operation sits on the Tribe's aboriginal land. Nevertheless, the NRC Staff and Crow Butte argue that the Tribe has failed to demonstrate standing through its interest in preserving cultural artifacts that exist or may exist on the site.

Crow Butte's license renewal application identifies eight archeological sites

¹⁹ Oglala Delegation of the Great Sioux Nation Treaty Council, Request for Hearing and Petition to Intervene, at 2-3 (July 30, 2008).

²⁰ LBP-08-24, 68 NRC 711-12, citing *United States v. Sioux Nation of Indians*, 448 U.S. 371, 382-83, 410-11 (1980). In *Sioux Nation*, the Court held that Congress had rescinded the portion of the Treaty that granted the Black Hills territory (including the area now belonging to Crow Butte) to the Sioux Tribe, through Congress's power of eminent domain.

²¹ *Id.* at 712.

²² See Delegation Appeal at 7-13.

²³ LBP-08-24, 68 NRC 715 n.120.

²⁴ *Id.* at 715.

²⁵ *Id.* at 710, 714.

within the project area that are Native American in origin.²⁶ Of twenty-one cultural resource sites found during the survey, six were deemed to be “potentially eligible for the National Register of Historic Places.”²⁷ Crow Butte has known about the sites since it began operations in the 1980s and states that they have not been directly impacted by licensed operations.²⁸

The Board observed that several federal statutes recognize that Indian Tribes have an interest in artifacts related to their heritage.²⁹ The Board also found that under provisions of National Historic Preservation Act (NHPA) § 106, a federal agency must consult with a Tribe concerning a federal action that might affect sites of cultural interest to the Tribe.³⁰ The Board noted that under these provisions, the NRC Staff should have consulted with the Tribe regarding these cultural resources when Crow Butte’s license was renewed in 1995, but apparently never did so.³¹ The Board therefore based standing both on the substantive interest the Tribe has in protecting the artifacts on the site and on its procedural interest in being consulted on their significance.³²

Crow Butte and the Staff argue that the Board erred in basing standing on the Tribe’s injury stemming from the Staff’s asserted failure to consult in compliance with the NHPA. They argue that the Staff’s duty to “consult” under the NHPA in this proceeding has not yet ripened (that is, the Staff has not reached the consultation stage yet), and the “injury” does not arise from a deficiency in the application.³³

These arguments misinterpret the Board’s ruling. The Board found that the Tribe has a current, concrete interest in protecting the artifacts on the site, not simply a procedural interest.³⁴ The past failure of the Staff to consult illuminates

²⁶ Crow Butte Uranium Project, Application for Renewal of USNRC Radioactive Source Materials License, SUA-1534, ADAMS Accession No. ML073480264, at 2-48 to 2-50 (LRA).

²⁷ *Id.* at 7-27. All Native American artifacts are described in the application as “unassigned,” rather than identifying the tribe of origin.

²⁸ In its application, Crow Butte states, “[t]hese resources however, have been avoided and not directly impacted as a result of construction activities. Any further construction activities will avoid these identified resources.” *Id.* See also LBP-08-24, 68 NRC at 721-22.

²⁹ LBP-08-24, 68 NRC at 713, citing, *e.g.*, Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. § 3001 *et seq.*; the National Historic Preservation Act, 16 U.S.C. § 470 *et seq.*; and the Archaeological Resources Protection Act (ARPA), 16 U.S.C. § 470aa *et seq.*

³⁰ LBP-08-24, 68 NRC at 713-14.

³¹ *Id.* at 714-15; see also discussion *id.* at 719-23.

³² *Id.* at 714-15.

³³ Staff Appeal at 15-16.

³⁴ LBP-08-24, 68 NRC at 715. The Board’s ruling on standing is in contrast to the NTEA Board’s ruling admitting a contention on the basis that the Staff had not yet undertaken required consultations. See LBP-08-6, 68 NRC at 327-30. Standing and contention admissibility are separate issues with distinct requirements.

the difficulties faced in protecting that interest. In addition, the Board pointed to federal case law holding that, where a party's procedural right has been violated, that party has standing to contest the procedural violation even where the underlying interest the procedural right seeks to protect does not face an "immediate" threat.³⁵ We decline to disturb the Board's ruling on this point.

c. "Nexus" to Injury

We reject Crow Butte's argument that the Board must find that the Tribe has no standing because its contentions have no "nexus" to the injury on which the Board found standing. This argument fails for two reasons. First, it is not clear that the Board found standing based *solely* on the Tribe's interest in cultural resources on the site. The Tribe asserted standing based both on its interest in cultural resources and on the potential contamination of water resources used by the Tribe.³⁶ With the exception of Environmental Contention E, each of the Tribe's environmental contentions relating to water contamination argued that this contamination could reach the Pine Ridge Indian Reservation and affect Tribe members living there.³⁷

The Board pointed out that the Tribe was among the petitioners claiming that interconnection between the aquifers was the source of potential injury.³⁸ After concluding that this theory described a plausible pathway to injury, the Board said it would therefore "grant standing to those petitioners with claims based on the use of well water," although it did not specify the Tribe as being among these petitioners.³⁹ Therefore, we cannot say that the Board based standing solely on the Tribe's interest in preserving artifacts on the Crow Butte site.

In addition, we have not, in the past, required that a petitioner demonstrate

³⁵ LBP-08-24, 68 NRC at 714 n.117, citing *Nulankeyutmonen Nkihtagmikon v. Impson*, 530 F.3d 18 (1st Cir. 2007) (finding that a Native American citizens group had standing to challenge BIA action where agency had not followed procedures under NEPA and NHPA. The court held that a "person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy." *Id.* at 27).

³⁶ Request for Hearing and/or Petition to Intervene at 6 (Tribe Petition) (July 29, 2008). Several of the individual Consolidated Petitioners living on the Pine Ridge Reservation, whom the Board found to have standing based on potential exposure to contaminated water, are members of the Tribe.

³⁷ Tribe Petition at 12-13 (Environmental Contention A); *id.* at 18 (Environmental Contention C); *id.* at 20 (Environmental Contention D).

³⁸ LBP-08-24, 68 NRC 705 & n.52. "While no petitioner . . . claims to reside, or own property, immediately contiguous to an ISL injection or processing well, all assert that [interconnections between the aquifers will result in] contaminants from Crow Butte's mining site [] 'flowing into pathways to human ingestion.'" *Id.*, citing Consolidated Petitioners' Reply, Tribe Petition, and Delegation Petition.

³⁹ *Id.* at 709.

contention-based standing. Crow Butte finds support for its argument in our 1996 decision in the *Yankee Rowe* reactor decommissioning proceeding, where we held that “once a party demonstrates that it has standing to intervene . . . that party may raise any contention that, if proved, will afford the party relief from the injury it relies upon for standing.”⁴⁰ Crow Butte argues that *Yankee Rowe* thus requires that there be a “nexus” between the injury and the contention. This misinterprets the *Yankee Rowe* ruling.

Yankee Rowe holds that, at a minimum, the “redressability” requirement for standing means that the claimed injury or potential injury could be relieved by some action taken in response to a sustained contention. Rather than requiring a “nexus” between the claimed injury and the contention, *Yankee Rowe* requires a nexus between the injury and the relief. For practical purposes, if denying a license amendment would alleviate a petitioner’s potential injury, *Yankee Rowe* would allow that petitioner to prosecute any admissible contention that could result in the denial of the license amendment, regardless of whether the contention was directly related to that petitioner’s articulated “injury.”⁴¹ An example can be seen in *Duke Power Co. v. Carolina Environmental Study Group*,⁴² a U.S. Supreme Court ruling (which we cited in *Yankee Rowe*) that *rejects* a “nexus” requirement for cases other than taxpayer lawsuits.⁴³ There, the Court upheld the district court’s finding that persons living near a proposed nuclear power plant (who claimed injury from radiological emissions from the plant) had standing to challenge the constitutionality of the Price-Anderson Act.⁴⁴ The Court accepted the district court’s reasoning that the petitioners had shown that “but for” Price-Anderson’s liability limitation, the proposed nuclear power plants would not be built, which would in turn redress the petitioners’ injuries.⁴⁵

The other cases Crow Butte cites for a “nexus” requirement concern standing to challenge statutory or regulatory provisions — a situation quite different from that presented here. In *Davis v. Federal Election Commission*,⁴⁶ the U.S. Supreme Court observed that a candidate who had standing to challenge one statutory provision of the campaign finance law would not *necessarily* have standing to

⁴⁰ *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996).

⁴¹ See also *Nulankeyutmonen Nkihtagmikon*, 503 F.3d at 28 (“all that is required in the case of a procedural injury is ‘some possibility that the requested relief will prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant’ ” (quoting *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497, 517-18 (2007))).

⁴² 438 U.S. 59 (1978).

⁴³ *Id.* at 78-79.

⁴⁴ Atomic Energy Act of 1954, as amended, § 170, 42 U.S.C.A. § 2210.

⁴⁵ *Duke Power Co.*, 438 U.S. at 72-78.

⁴⁶ 554 U.S. 724 (2008).

challenge a different provision of that same law.⁴⁷ Similarly, in *Rosen v. Tennessee Commissioner of Finance and Administration*,⁴⁸ the U.S. Court of Appeals for the Sixth Circuit held that a class of plaintiffs challenging one provision of the state Medicaid program would not have standing to challenge a different provision unless they could show that one of the named plaintiffs would be adversely affected by that provision. In those cases, however, the standing inquiry did not turn on type or substance of the claim, but on whether or not the challenged regulation applied to the party challenging it.

Here, the Tribe claimed injury stemming from asserted groundwater contamination and, additionally, demonstrated to the Board's satisfaction that its interest in cultural resources on the site could be adversely affected by operations at the licensed facility. In this case, there are alternative grounds for finding standing for the Tribe. This case is not an appropriate vehicle to revisit the question of contention-based standing or consider limitations to the standing doctrine.

2. Consolidated Petitioners

Crow Butte and the Staff claim that none of the Consolidated Petitioners has shown a "plausible scenario" wherein the individuals (or individual members of organizational petitioners) will be harmed by the license renewal application in this proceeding.

a. Representational Standing of Owe Aku and WNRC

Crow Butte and the Staff argue that the Board erroneously based standing for two organizations — Owe Aku and WNRC — on affidavits that were executed and filed in the NTEA expansion license amendment proceeding, which is a separate proceeding from the one at bar. The NTEA Board found standing for WNRC based on an affidavit and supplemental affidavit submitted by Dr. Francis Anders, and for Owe Aku based on an affidavit submitted by David Alan House.⁴⁹

Consolidated Petitioners did not attach Mr. House's or Dr. Anders' affidavits

⁴⁷ 554 U.S. at 733-34.

⁴⁸ 288 F.3d 918 (6th Cir. 2002).

⁴⁹ See Affidavit of Francis E. Anders (Dec. 28, 2007) (ADAMS Accession No. ML080080289) (Anders Affidavit), and Supplemental Affidavit of Francis E. Anders (Jan. 29, 2008) (ADAMS Accession No. ML080370544) (Supplemental Anders Affidavit); Affidavit of David Alan House (Jan. 10, 2008) (ADAMS Accession No. ML080240299) (House Affidavit). The captions of all three affidavits are titled "Crow Butte Resources, Inc. (In Situ Leach facility)" (that is, they do not refer to the "North Trend Expansion Project" by name); the proceeding number is given as "ASLBP No. 07-859-03-MLA"; and the NTEA Board members are listed at the top.

to their original intervention petition in this license renewal proceeding.⁵⁰ Instead, they “incorporated by reference” the affidavits submitted in the NTEA proceeding, along with many other documents also filed in that proceeding.⁵¹ The Consolidated Petition’s description of Owe Aku does not mention Mr. House at all, and the petition states without elaboration that Dr. Anders is a WNRC member living near the existing site.⁵²

Consolidated Petitioners first specifically discussed Dr. Anders as WNRC’s representative in their reply to the Staff’s and Crow Butte’s answers.⁵³ There, they advanced a “collateral estoppel” argument, based on the NTEA Board’s finding of standing in that proceeding.⁵⁴ Crow Butte moved to strike the portions of the Consolidated Petitioners’ reply that referred to new persons in support of standing, who were not discussed in the original petition, and for whom no new affidavits authorizing representation were submitted.⁵⁵

Consolidated Petitioners’ answer to the Motion to Strike argued that the incorporation by reference of the Anders and House affidavits from the NTEA proceeding was sufficient to show that the representation was authorized, and further argued that there “is no requirement for a person to sign a new affidavit in this [p]roceeding when they have signed and delivered an Affidavit in the Expansion Proceeding.”⁵⁶

The Board rejected the collateral estoppel argument, but granted standing on the basis of the NTEA affidavits.⁵⁷ The Board did not elaborate on the reasoning underlying its holding that affidavits filed in one proceeding may be used to authorize representation in a different proceeding. We surmise that the Board looked at such factors as the close timing of the two licensing proceedings, the physical proximity of the two facilities involved, and the fact that they involve the same license, if not the same licensing action.

We do not agree that there was no need to file new affidavits in the instant proceeding. Our case law requires an organization to submit written authorization from a member whose interests it purports to represent in order to have a “concrete indication” that the member wishes to have the organization represent his interests

⁵⁰ Consolidated Request for Hearing and Petition for Leave to Intervene at 6 (July 28, 2008) (Consolidated Petition).

⁵¹ *Id.* at 4-8.

⁵² *See id.* at 13-14.

⁵³ Petitioners’ Consolidated Reply to Applicant and NRC Staff Answers to Consolidated Petition to Intervene at 44-45 (Sept. 3, 2008) (Consolidated Reply).

⁵⁴ *Id.* at 42.

⁵⁵ *See* Applicant’s Motion to Strike Portions of Petitioners’ Replies at 7 (Sept. 15, 2008).

⁵⁶ Petitioners’ Answer to Applicant’s Motion to Strike Portions of Petitioners’ Reply at 20 (Sept. 25, 2008).

⁵⁷ LBP-08-24, 68 NRC 703-04, 709-10.

there.⁵⁸ While it is permissible to incorporate by reference specific documents in a proceeding, incorporation by reference cannot change or expand the legal effect of an affidavit.

If we would allow, on some occasions, an affidavit executed in one proceeding to be used in another, then the Board would be in a position of guessing in each case what the affiant truly intended. The affidavits in this case illustrate this dilemma. Mr. House's affidavit, which he filed in the license amendment proceeding, speaks only of the expansion project and of Mr. House's concern that the expansion project will affect the water he drinks and the air he breathes.⁵⁹ His affidavit does not mention the existing facility. On the other hand, Dr. Anders' affidavit speaks of harm arising from the existing facility, and can reasonably be construed to authorize representation by WNRC with respect to the existing facility.⁶⁰

It does not follow, however, that WNRC could use Anders' affidavit in every other proceeding that may arise in the future involving Crow Butte. For example, in a proceeding arising 5 or 10 years hence, a licensing board could not know if the affiant has moved, died, or simply changed his views. To avoid such ambiguity, we think it best to follow a "bright line" rule: Affidavits authorizing organizational representation must be filed with specific reference to the proceeding in which standing is sought.⁶¹

Such a rule, however, is not set forth in our regulations, nor have we previously made this finding in so many words.⁶² For this reason we *remand* this issue to

⁵⁸ See *Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409-10 (2007), quoting *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 396 (1979), *reconsideration denied*, ALAB-539, 9 NRC 422 (1979) and ALAB-544, 9 NRC 630 (1979).

⁵⁹ See House Affidavit ("I am therefore concerned that the *proposed mine expansion* project may effect [*sic*] the quantity and quality of the water in my well" (emphasis added)).

⁶⁰ See Anders Affidavit at 1 ("I have observed that since CBR started drilling near my well in Fall 2007 . . . my well water becomes discolored"); Supplemental Anders Affidavit at 1 ("I have been a member of WNRC since I began opposing *this uranium mine* many years ago" (emphasis added)).

⁶¹ We do not think it a burden for the organizational petitioner to get a fresh affidavit for each proceeding in which it seeks to represent a member. This is particularly true when the defect was brought to the attention of petitioners — represented by counsel in this proceeding — who did not attempt to remedy the defective affidavits. See Applicant's Motion to Strike Portions of Petitioners' Replies at 7 (Sept. 15, 2008).

⁶² In *Allens Creek* the Appeal Board implied that a specific affidavit might not be necessary: in some instances, the authorization might be presumed. For example, such a presumption could well be appropriate where it appear[s] that the sole or primary purpose of the petitioner organization was to oppose nuclear power in general or the facility at bar in particular. In such a situation, it might be reasonably inferred that, by joining the organization, the members
(Continued)

the Board so the Board may give these organizations the opportunity to cure the defects in their affidavits.⁶³

b. Individual and Family Petitioners

The individual and family petitioners⁶⁴ among the Consolidated Petitioners live on the Pine Ridge Indian Reservation, approximately 40 miles from the site of the Crow Butte operation. The Board found that these petitioners had shown that the ISL uranium recovery facility may cause contamination of the White River, which runs through the Pine Ridge Indian Reservation and which these petitioners use for fishing and recreation, and of the Arikaree aquifer, from which these petitioners draw water for domestic use.

The petitioners argued that their expert, a geologist, Hannan E. LaGarry, Ph.D., whose opinion was submitted in support of the Consolidated Petition, described “pathways” through which each petitioner could be exposed to contaminants from the ISL uranium recovery operation.⁶⁵ In particular, they pointed to portions of Dr. LaGarry’s opinion that suggest that the uranium being recovered could exist in faults between the mined aquifer and aquifers supplying drinking water to the petitioners.

The Board looked closely at Dr. LaGarry’s opinion in finding standing. Among Dr. LaGarry’s concerns that the Board cited were: that “the ‘layer cake’ concept applied to the local geology by 1990s researchers, and relied on by Crow Butte, is incorrect and overestimates the thickness and areal extent of many units [of confinement] by a factor of 40 to 60%”;⁶⁶ that the uranium recovery operation itself could contribute to the vertical transfer of water “through intersecting faults and joints that can extend for tens of miles”;⁶⁷ that the mined uranium may exist

were implicitly authorizing it to represent any personal interests [that] might be affected by the proceeding.

ALAB-535, 9 NRC at 396.

⁶³ Provided the defective affidavits are cured, we see no reason to revisit the Board’s determination on Dr. Anders’ and Mr. House’s standing. The Staff and Crow Butte do not argue that these two petitioners, who reside much closer to the facility than the individual Consolidated Petitioners who live on the Pine Ridge Indian Reservation, otherwise would be unable to demonstrate standing.

⁶⁴ By “individual and family petitioners,” we refer to Beatrice Long Visitor Holy Dance, Debra White Plume, Loretta Afraid of Bear Cook, Thomas Kanatakeniate Cook, Joe American Horse, Sr., and the Afraid of Bear/Cook Tiwahe and American Horse Tiospaye.

⁶⁵ Consolidated Petition at 3, citing LaGarry, Expert Opinion Regarding ISL Mining in Dawes County, Nebraska, at 3 (LaGarry Opinion).

⁶⁶ LBP-08-24, 68 NRC at 706.

⁶⁷ *Id.*, citing LaGarry Opinion at 4.

within the faults themselves;⁶⁸ which would make “contamination [of overlying aquifers] by chemically altered waters [] a virtual certainty.”⁶⁹

The Staff claims that the Board “improperly formulates its own bases to enhance the sufficiency of the Consolidated Petitioners’ standing argument.”⁷⁰ By this the Staff means that the Consolidated Petition did not explain how the LaGarry Opinion supports the petitioners’ claims of potential harm.

We do not agree that the Consolidated Petition fails to describe a plausible theory whereby the petitioners could be harmed. The Consolidated Petition explained each petitioner’s use of well water and water from the White River, as applicable, and gave a brief summary of how the LaGarry Opinion showed that these sources could be contaminated. It was not unreasonable for the Board to look more closely at the LaGarry Opinion in deciding whether there was a plausible pathway to injury.

The Staff and Crow Butte also argue that the Board improperly shifted the burden to the Staff and the Applicant to refute the plausibility of harm to the petitioners, rather than requiring the petitioners to show a plausible chain of causation in the first instance.⁷¹ We do not agree that the Board reversed the burden here.

The Board recognized that it was the petitioners’ burden to show a “specific and plausible means” whereby the licensing decision may harm them.⁷² In determining how that standard should be applied in an ISL uranium recovery proceeding, the Board looked to the standing analysis applied in the *Hydro Resources* ISL proceeding. The presiding officer in *Hydro Resources* reasoned that “anyone who uses a substantial quantity of water personally or for livestock from a source that is reasonably contiguous to either the injection or processing sites has suffered an injury in fact.”⁷³ Recognizing that in this case, “reasonable” contiguity would be a matter of judgment, the Board considered whether the petitioners had presented evidence for their theory that the mined aquifers may be connected to overlying aquifers and to the White River, and found that they had. The Board cited several portions of the LaGarry Opinion, which it found raised a plausible pathway by which the petitioners could be harmed.

⁶⁸ *Id.* at 706-07.

⁶⁹ *Id.* at 707.

⁷⁰ Staff Appeal at 9.

⁷¹ Staff Appeal at 11-12; Crow Butte Appeal at 12-13.

⁷² LBP-08-24, 68 NRC at 704. See *USEC Inc. (American Centrifuge Plant)*, CLI-05-11, 61 NRC 309, 311-12 (Where there is no “obvious potential” for offsite harm, the petitioner must show a “specific and plausible means of how the challenged action may harm him or her”).

⁷³ *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 275 (1998), *rev’d on other grounds*, CLI-98-16, 48 NRC 119 (1998).

Once the Board found that the petitioners had presented a plausible injury, it was not required to weigh the evidence to determine whether the harm to the petitioners is beyond doubt.⁷⁴ In other words, it did not find that, at that point, Crow Butte and the Staff then had to refute the plausibility of petitioners' theory in order to defeat standing. While Crow Butte and the Staff *attempted* to refute the petitioners' claims, the Board was not persuaded. We find no clear error, and defer to the Board's judgment of the individual and family petitioners' standing.

B. Contention Admissibility

Both the Staff and Crow Butte contend that, even if the various petitioners have demonstrated standing, none of them has set forth an admissible contention in the license renewal proceeding. We do not agree that none of the contentions is admissible. We find, however, that the Board erred in admitting Tribe Environmental Contentions B and E, Consolidated Petitioners' Environmental Contention E, Consolidated Petitioners' Miscellaneous Contentions G and K, and Consolidated Petitioners' Safety Contention A, for the reasons described below.

1. Tribe's Contentions⁷⁵

a. Tribe's Environmental Contention A (Nonradiological and Radiological Health Impacts)

The Tribe contends that Crow Butte has failed to substantiate its claim that there are no nonradiological health impacts relating to ISL uranium recovery, and that Crow Butte's groundwater monitoring system does not protect against potential contamination affecting the Tribe. Although the Tribe made many assertions in its proposed contention, the Board limited the admitted contention to the following claim:

The Tribe has identified a genuine dispute with the License Renewal Application by raising sufficient questions as to whether Crow Butte's spill contingency plan adequately addresses nonradiological contaminants. Specifically in this regard, the Tribe challenges the monitoring frequency for contaminants, and the Tribe's expert,

⁷⁴ *Sequoyah Fuels Corp. and General Atomic* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 74 (1994).

⁷⁵ The Consolidated Petitioners requested to join in each of the Tribe's contentions. Petitioners Joinder to Oglala Sioux Tribe Environmental Contentions A, B, C, D and E (Nov. 26, 2008). The Board denied that request but stated that a motion by the Consolidated Petitioners to adopt or co-sponsor the Tribe's contentions "would be appropriate." Order (Denying Motion for Joinder), at 4 (Dec. 30, 2008).

Dr. Abitz, opines that certain portions of the License Renewal Application . . . are deficient.⁷⁶

The Tribe cited the report of Dr. Richard J. Abitz, Ph.D., a geochemist, who opined that there is “no valid scientific reason” to exclude uranium from the substances for which Crow Butte monitors.⁷⁷ The Tribe also argued that a biweekly testing plan was too infrequent to detect leaks that might occur between tests.⁷⁸

The Staff challenges the admission of the Tribe’s Environmental Contentions A, C, and D together, saying that the Board should not have relied on the opinion of Dr. LaGarry.⁷⁹ In this general argument, the Staff claims Dr. LaGarry’s opinion is deficient in various ways.⁸⁰ But in admitting Tribe Environmental Contention A, the Board relied primarily on the expert opinion of Dr. Abitz, rather than on the testimony of Dr. LaGarry.⁸¹ The general attack on the sufficiency of Dr. LaGarry’s report does not provide a reason to overturn the Board’s ruling.

Crow Butte’s appeal claims that the Tribe failed to call into question the adequacy of Crow Butte’s biweekly monitoring program because its “application and experience shows [that] an undetected excursion is unlikely.”⁸² It claims that the well field is ringed by monitoring wells in both the mined and overlying aquifers that would detect any excursions.⁸³ It defends its decision to monitor for chloride rather than uranium, because chloride is naturally found in low concentrations and will be detected quickly by monitoring wells should an excursion occur.⁸⁴

Crow Butte’s arguments go to the merits of whether its monitoring program is adequate. They do not show that there is no genuine dispute over this matter. The Tribe explained its position in reasonable detail and provided expert reports to support that position. We therefore defer to the Board’s ruling that Environmental Contention A, as limited by the Board, is admissible.

⁷⁶ LBP-08-24, 68 NRC at 718.

⁷⁷ *Id.* at 717 n.132, citing a report by Richard Abitz, Ph.D., Geochemical Consulting Services (July 28, 2008) that was attached to the Consolidated Petition (Abitz Report).

⁷⁸ Tribe Petition at 7, citing LRA § 5.8.8.2.

⁷⁹ Staff Appeal at 19.

⁸⁰ *Id.* at 20-21.

⁸¹ LBP-08-24, 68 NRC at 717 & n.132. The Tribe also offered a 1989 letter to NRC from an exploration geologist, John Peterson, to Gary Konwinski, NRC Uranium Recovery Field Office, which claimed that the mined aquifer communicated with aquifers used for drinking water at Pine Ridge. *Id.* at 716-17.

⁸² Crow Butte Appeal at 16-17.

⁸³ *Id.*

⁸⁴ *Id.* at 17-18, citing LRA at 5-107.

b. *Tribe's Environmental Contention B (Failure to Consult with the Oglala Sioux Tribe Concerning Properties of Potential Cultural Significance)*

Environmental Contention B claims that the Staff has not fulfilled statutory obligations to consult with tribal leaders regarding cultural artifacts found on the Crow Butte site:

The Oglala Sioux Tribe has not been consulted . . . regarding the cultural resources that may be in the license renewal area. [Crow Butte] has identified what it believes to be cultural resources in the area, but the Tribe has had no input on this list, and it therefore cannot be complete. Furthermore, [Crow Butte] has provided that it will work in conjunction with the Nebraska State Historical Society to avoid the identified resources, but this ignores mandated participation by the Oglala Sioux Tribe.⁸⁵

The Board admitted the contention without revision.⁸⁶

As discussed above, Crow Butte's license renewal application identified eight sites of potential historical interest that are identified as Native American of unspecified origin.⁸⁷ Because the Crow Butte site is within the Tribe's historical territory, some or all of these artifacts may be of Sioux origin. The Tribe argues that under the National Historic Preservation Act⁸⁸ the Staff must consult with the Tribal Historic Preservation Officer (THPO) before it approves this licensing action.

The NHPA requires federal agencies to take into account the effect that certain proposals may have on properties listed, or eligible for listing, on the National Register of Historic Places.⁸⁹ The implementing regulations of the Advisory Council on Historic Preservation provide that an agency must consult with Indian tribes in two situations. First, where the action is going to take place on tribal lands, the agency must consult with the THPO if one has been designated, to assume the duties normally performed by the State Historic Preservation Officer (SHPO) on tribal lands.⁹⁰ Second, the agency must make a "reasonable and good faith effort to identify any Indian tribes . . . that might attach religious and cultural

⁸⁵ Tribe Petition at 13.

⁸⁶ LBP-08-24, 68 NRC at 723.

⁸⁷ See notes 26-28 and accompanying text.

⁸⁸ 16 U.S.C. § 470 *et seq.*

⁸⁹ The Advisory Council on Historic Preservation's NHPA regulations apply to federal "undertakings," defined as any "project, activity or program . . . funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those . . . requiring a Federal permit, license or approval." 36 C.F.R. § 800.16(y). The NRC implements its responsibilities under NHPA in conjunction with the NEPA process. See *USEC Inc. (American Centrifuge Plant)*, CLI-06-9, 63 NRC 433, 437-38 (2006).

⁹⁰ 36 C.F.R. § 800.3(c).

significance to historic properties in the area of potential effects and invite them to be consulting parties.”⁹¹

The Staff argues that this contention is not ripe.⁹² Because the NHPA requires the Staff, not the Applicant, to consult with the Tribe, the issue will not ripen until the Staff completes its NEPA review, they argue. Similarly, Crow Butte argues that NHPA imposes duties on the Staff, not the Licensee, and therefore the contention does not show a material dispute with the application.⁹³

The Board rejected the “ripeness” argument after considering how the NHPA requirements were handled when Crow Butte’s license was first issued in 1988, and subsequently renewed.⁹⁴ The NHPA imposed no consultation duty on the Staff when Crow Butte’s license was first issued, as the consultation requirement was added in 1992.⁹⁵ Despite the change to the law, however, the Tribe was not consulted regarding cultural artifacts known to exist on the site when Crow Butte’s license was renewed in 1998.⁹⁶ According to the Staff, it attempted to satisfy the section 106 requirements by consulting with the Nebraska Deputy SHPO.⁹⁷ The Nebraska Deputy SHPO approved Crow Butte’s plan to avoid the identified cultural resource sites and to consult with the Nebraska State Historical Society prior to any new development in the vicinity of those sites.⁹⁸

According to a 1997 letter from the Staff to the Nebraska State Historical Society, Crow Butte committed to “initiating contact with the appropriate Native American Tribes.”⁹⁹ The attempts to contact appropriate tribes consisted of letters from Crow Butte’s contractor to various Indian tribes, known to have used the project area, asking for input. But rather than asking for help identifying the specific Native American artifacts found onsite, the letters imply that no such artifacts were found:

⁹¹ 36 C.F.R. § 800.4(f)(2).

⁹² Staff Appeal at 21-24.

⁹³ Crow Butte Appeal at 18.

⁹⁴ See Tr. 363-65.

⁹⁵ 16 U.S.C. § 470(a) (1990).

⁹⁶ Staff Response to Board Questions at 7.

⁹⁷ NRC Staff’s (1) Responses to the Board’s “Follow Up” Questions During the September 30-October 1, 2008 Oral Argument and (2) Statement of Clarification Relating to the Scope of NRC’s Jurisdiction to Regulate the Release of Non-Radiological Contaminants at 5 (Oct. 22, 2008), Attachment E, Letter from Joseph J. Holonich, Chief, Uranium Recovery Branch, USNRC, to Lawrence J. Sommer, Director, Nebraska State Historical Society (Dec. 31, 1997) (Staff Response to Board Questions).

⁹⁸ Staff’s Response to Board Questions, Attachment E at 1.

⁹⁹ Staff’s Response to Board Questions, Attachment G, Letter from L. Robert Puschendorf, Nebraska State Historical Society, to Joseph J. Holonich, Chief, Uranium Recovery Branch, USNRC (May 4, 1998).

Surface investigations were conducted in 1986 . . . to identify the physical remains of historic and prehistoric resources in the project area, but *localities of potential traditional concern or value to Native American groups were not identified*. If you know of any traditional properties or values located in the legal location described above . . . your input would be greatly appreciated.¹⁰⁰

The NRC Staff considered that the contractor's letters constituted a "good faith effort" to identify traditional cultural properties.¹⁰¹

The Board expressed doubts whether the Staff's past handling of its NHPA was adequate:

Certainly, because the duty to consult with tribes lies with the Agency, not the Applicant, inserting a condition into Crow Butte's license requiring Crow Butte to consult with the Tribe does not absolve the NRC Staff of its duty to consult. Moreover, the NRC Staff's mention of [Crow Butte's contractor's] apparently unsuccessful attempts to contact the Oglala Tribe, and the NRC Staff's subsequent determination that [the contractor] made "a good faith effort in attempting to identify [Traditional Cultural Properties]" also does not excuse the NRC Staff [from] its duty to contact and consult with the Tribe itself.¹⁰²

It appears that the Board reasoned that, if the Staff in the past has relied on the Applicant's actions to satisfy its NHPA duties, it could assume that the Staff will do so again. The Board also expressed concern that if the Tribe is required to wait until the Staff's environmental review is complete before it raises an issue concerning consultation, it will be subject to more stringent admissibility standards applicable to late-filed contentions, and would not be privy to correspondence taking place between the Staff and Nebraska SHPO. The Board further rejected the Staff's argument that whether the Staff has fulfilled its NHPA duties is not an issue "material to the findings the NRC must make in support of" the licensing action.¹⁰³

We agree with the Board that consultation with the Tribe is material and within the scope of this license renewal proceeding, but we find that the matter

¹⁰⁰ See Staff's Response to Board Questions, Attachment F, Survey of Traditional Cultural Properties Crow Butte Project, Dawes County, NE (April 2, 1998), App. A, Letters and Faxes Sent to the Native American and Governmental Contacts (emphasis added).

¹⁰¹ Staff's Response to Board Questions, Attachment H, Letter from Joseph J. Holonich, Chief, Uranium Recovery Branch, USNRC, to L. Robert Puschendorf, Nebraska State Historical Society (June 26, 1998).

¹⁰² LBP-08-24, 68 NRC at 722.

¹⁰³ *Id.* at 723, citing 10 C.F.R. § 2.309(f)(1)(iv). On appeal, the Staff argues that its *past* alleged violations of NHPA requirements are not within the scope of this proceeding. See Staff Appeal at 24. The contention as admitted, however, does not encompass past violations.

is not ripe. As to the Board's concerns that a contention would be subject to the late-filing standards if the Tribe must defer its contention until the NEPA review is complete, our rules of procedure explicitly allow the filing of new contentions on the basis of the draft or final environmental impact statement where that document contains information that differs "significantly" from the information that was previously available.¹⁰⁴ In this case, whether and how the Staff fulfills its NHPA obligations are issues that could form the basis for a new contention pursuant to that provision.¹⁰⁵ In addition, official agency records relating to the Staff's NHPA review that are essential to the decision-making process will be made available on the agency's public records system (ADAMS). We therefore reverse the Board's decision to admit the Tribe's Environmental Contention B.

c. Tribe's Environmental Contention C (Impact on Surface Waters from Accidents)

The Tribe disputes Crow Butte's statement in its application that, because there are no nearby surface water features, there will be no impacts to surface waters from an accident:

In 7.4.2.2 in its application for renewal [Crow Butte's] characterization that the impact of surface waters from an accident is "minimal since there are no nearby surface water features," does not accurately address the potential for environmental harm to the White River.¹⁰⁶

In its petition, the Tribe pointed out that other portions of the application identify two small tributaries of the White River that cross the area of operations. The Tribe also claimed that the operation could contaminate the White River alluvium through three pathways, identified by Dr. LaGarry: "a) from surface spills at the Crow Butte mine site; b) from waters transmitted through the Chamberlain Pass

¹⁰⁴ See 10 C.F.R. § 2.309(f)(2) (providing that, with respect to issues arising under NEPA, the petitioner may file new contentions "if there are data or conclusions in the NRC draft or final environmental impact statement . . . that differ significantly from the data or conclusions in the applicant's documents"). In such a case, the "late-filing" standards are no bar to the admission of properly supported contentions.

¹⁰⁵ Such a contention is usually considered timely if filed within 30 days of publication of the draft environmental impact statement. See, e.g., *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1, 6 (2008).

¹⁰⁶ Tribe Petition at 16.

Formation^[107] where it is exposed at the land surface; and c) through faults.’’¹⁰⁸ The Tribe submitted an additional report from an engineering firm, which opined that, given the description of Crow Butte’s operation, the White River alluvium should be tested for contamination.¹⁰⁹

The Board admitted the contention as proposed, finding that based on the three expert reports, “the Tribe has supplied sufficient expert opinion to draw into question whether these aquifers are interconnected and so could be the potential pathway for contaminant migration to surface waters.” The Board found that Crow Butte’s arguments to the contrary amount to “banking on its ability to prevent accidental releases from ever reaching surface waters.”¹¹⁰

The Staff and Crow Butte argue that the Tribe’s expert opinions were not specific enough, and include examples of information that could have been in the reports, but was not.¹¹¹ Fundamentally, Crow Butte and the Staff argue that the Tribe has not proved a connection between the mined aquifer waterways.

Whether the Tribe has proved its claim is not the issue at the contention pleading stage. The Board simply has to find that each of the elements of contention admissibility is satisfied, and need not weigh the merits of the petitioner’s arguments. We defer to the Board’s decision to admit this contention.

d. Tribe’s Environmental Contention D (Communication Among the Aquifers)

The Tribe claims that the LRA “incorrectly states that there is no communication among the aquifers” and that, in fact, there is communication between the Basal Chadron and the aquifer supplying drinking water to the reservation:

In 7.4.3 [Crow Butte’s] Application incorrectly states there is no communication among the aquifers, when in fact, the Basal Chadron aquifer, where mining occurs, and the aquifer which provides drinking water to the Pine Ridge Indian Reservation,

¹⁰⁷ “Chamberlain Pass Formation” is, according to LaGarry, the correct term for the formation that Crow Butte calls the “Basal Chadron Sandstone” (the mined aquifer). LaGarry Opinion at 2. According to LaGarry, the Chamberlain Pass is between 1 million and 1.5 million years older than the Chadron formation. *Id.* at 3.

¹⁰⁸ LaGarry Opinion at 3.

¹⁰⁹ Paul G. Ivancie, PG, and W. Austin Creswell, PE; Summary of Recommendations and Opinions on CBR (July 28, 2008) (unnumbered attachment to Consolidated Petition).

¹¹⁰ LBP-08-24, 68 NRC at 725, 724.

¹¹¹ Among the deficiencies Staff claims in the LaGarry Opinion is that he does not identify “what constitutes contaminants.” Staff Appeal at 20. But LaGarry specifically mentions “lixiviant or uranium-laden water” as potential contaminants. LaGarry Opinion at 3. In addition, Crow Butte acknowledges that the lixiviant used in its processes solubilizes such contaminants as arsenic and radium, so that the lixiviant itself must be contained or neutralized within the well field.

communicate with each other, resulting in the possibility of contamination of the potable water.¹¹²

The Tribe cited to Dr. LaGarry's expert opinion, specifically pointing to his assertion that there is a fault along the White River that could transport contaminants. The Tribe also cited a November 8, 2008, letter from the Nebraska Department of Environmental Quality (NDEQ)¹¹³ requesting more information to support Crow Butte's application for an aquifer exemption with respect to the NTEA site. The NDEQ letter, which deals primarily with the NTEA site, as opposed to the site of existing operations, also questions portions of the aquifer exemption application that claim there is no interconnection between the mined and overlying aquifers.¹¹⁴

The Board admitted the contention as proposed, finding that the Tribe's two documents supported its claim and raised an issue whether the aquifers are interconnected.

On appeal, Crow Butte claims that the Tribe provides no proof of its claim that the aquifers are interconnected and questions the specificity and adequacy of the two documents on which the Tribe relies.

With respect to Dr. LaGarry's report, Crow Butte argues that the report "posits a potential link to the White River, but not to the aquifers used for drinking water in Pine Ridge."¹¹⁵ But, in actuality, Dr. LaGarry's report does both. Dr. LaGarry states that one path through which contaminants could migrate away from the well fields is through faults.¹¹⁶ He avers that faulting and jointing are common in the region of northwestern Nebraska.¹¹⁷ He says that one way faults could transmit the contaminants is if excursions of lixiviant or uranium-laden water in the Chamberlain Pass (Basal Chadron) formation were to escape the well field.¹¹⁸ Dr. LaGarry also states that the groundwater gradient is generally eastward, and such an excursion could potentially threaten Pine Ridge to the northeast or the Town of Chadron, to the southeast.¹¹⁹ Finally, Dr. LaGarry notes that artesian flow occurs "along the Pine Ridge," which would cause upward flow from the

¹¹²Tribe Petition at 17.

¹¹³Letter, Stephen A. Fischbein, P.G., Nebraska Department of Environmental Quality, to Stephen P. Collings, Crow Butte Resources, Inc., Technical Review of Aquifer Exemption Petition for North Trend Expansion (ADAMS Accession No. ML073300399) (Nov. 8, 2008).

¹¹⁴See LBP-08-24, 68 NRC at 727.

¹¹⁵Crow Butte Appeal at 20.

¹¹⁶See LaGarry Opinion at 3-4.

¹¹⁷*Id.* at 3.

¹¹⁸*Id.*

¹¹⁹*Id.* at 3-4.

Chamberlain Pass formation to the upper aquifer wherever there is a hydrologic connection, whether naturally occurring or the result of drilling.¹²⁰

Crow Butte argues on appeal that the LaGarry Opinion is “nothing more than an overview of regional geology” which is “no substitute for the detailed, site-specific investigations” in Crow Butte’s own application. The Board response to that argument (asserted below by both Crow Butte and Staff) is apt: “What Crow Butte and the Staff choose to ignore, however, is that the Tribe is concerned with potential migration ‘outside the mining area.’”¹²¹

As with Environmental Contention C, the Board was not required to weigh the evidence, but rather to determine whether the contention was supported and raised a genuine dispute material to, and within the scope of, the proceeding. We therefore defer to the Board’s decision to admit Environmental Contention D for hearing.

e. Tribe’s Environmental Contention E (Wastes Remain Onsite)

The Tribe contends that the application misstates how Crow Butte handles waste disposal:

CBR’s application incorrectly states in 7.11 that “wastes generated by the facility are contained and eventually removed to disposal elsewhere.”¹²²

The Tribe argues, in Environmental Contention E, that Crow Butte’s cited statement in the application is in error, because, for a 2½-year period, Crow Butte “released well development water upon . . . the ground” in violation of its Nebraska-issued Underground Injection Control Permit.¹²³ As support for this claim, the Tribe offered an NDEQ enforcement complaint and a consent decree entered into between NDEQ and Crow Butte in May 2008.¹²⁴ According to the Consent Decree, Crow Butte “recycled its well development water as a conservation measure,” “[s]uch treatment of the well water did not result in any pollution of either the surface of the ground or any aquifer thereunder,” and Crow Butte self-reported the violation after discovering that this practice violated the terms of its NDEQ permit.¹²⁵

¹²⁰ *Id.* at 4.

¹²¹ LBP-08-24, 68 NRC at 727.

¹²² Tribe Petition at 21.

¹²³ *Id.*

¹²⁴ See Complaint, Dist. Ct. Lancaster County, NE Case No. CI08-228 (May 23, 2008); Consent Decree, Dist. Ct. Lancaster County, NE Case No. CI08-228 (May 23, 2008).

¹²⁵ Consent Decree at 2.

The Board admitted Environmental Contention E because the Board found that it raised questions concerning Crow Butte's environmental practices. The Board pointed to the Commission's ruling with respect to the Georgia Tech Research Reactor that license renewal is "an appropriate occasion for apprais[ing] . . . the entire past performance of [the] licensee."¹²⁶

We find that this contention fails to raise a genuine issue of material fact. Further, in admitting the contention, the Board appears to have expanded the Tribe's claim regarding a single, past violation into a broad inquiry into the Applicant's management integrity.

The Tribe's only supporting evidence of its claim — the NDEQ complaint and the consent decree — show that the practice of recycling of well development water has been discontinued. We do not see how a single, past violation of Crow Butte's state permit could demonstrate an "ongoing pattern of violations or disregard for regulations that might be expected to [recur] in the future."¹²⁷ To raise an admissible issue, "[a]llegations of management improprieties . . . must be of more than historical interest."¹²⁸

In addition, the Tribe did not frame this contention as a general attack on the quality or integrity of the management of the uranium recovery facility (as was the case with the Georgia Tech Research Reactor).¹²⁹ It is difficult to see how the self-reported violation could raise such an issue had the contention been so presented. This contention does not show a need for the Board to "appraise the entire past performance" of the Licensee with respect to its waste management practices.

We find that this contention does not show a genuine dispute with the application that is within the scope of this proceeding, and does not meet the requirements of 10 C.F.R. § 2.309(f)(1). Therefore, we reverse the Board's decision to admit the Tribe's Environmental Contention E.

2. Consolidated Petitioners' Contentions

In LBP-08-24, the Board considered twenty-three proposed contentions submitted by the Consolidated Petitioners, and rejected all but four. Crow Butte and the Staff now appeal the Board's admissibility findings with respect to those four contentions.

¹²⁶ LBP-08-24, 68 NRC at 728, citing *Georgia Institute of Technology* (Georgia Tech Research Reactor), CLI-95-12, 42 NRC 111, 120 (1995), citing *Hamlin Testing Laboratories, Inc.*, 2 AEC 423, 428 (1964).

¹²⁷ See *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 464 (2006).

¹²⁸ *Georgia Tech*, CLI-95-12, 42 NRC at 120.

¹²⁹ In *Georgia Tech*, the petitioners alleged several serious safety problems that had persisted with respect to the reactor over a period of years. See CLI-95-12, 42 NRC at 118.

a. *Consolidated Petitioners' Environmental Contention E (Failure to Consider Economic Value of Wetlands in Cost/Benefit Analysis)*

Consolidated Petitioners argue that the application is deficient in that it fails to consider the economic value of wetlands in describing the benefits of not renewing the license (the “no action” alternative). In support of their claim, Consolidated Petitioners cited studies that analyze the economic benefit of wetlands.¹³⁰ Consolidated Petitioners pointed to portions of the application that describe the economic impacts of the no-action alternative in terms of jobs lost and the loss of an “important source of domestic uranium,” and they point out that the application does not discuss the economic benefits of restoring wetlands.¹³¹

The NRC Staff argues that there is no need to discuss the potential economic value of restoring wetlands because the ongoing operation has no effect on wetlands.¹³² According to the application, only 3% of the area covered by the license is wetlands,¹³³ there are no wetlands within the project area,¹³⁴ and Crow Butte takes steps to ensure that construction does not affect surface waters through runoff.¹³⁵ The Staff argues that Consolidated Petitioners fail to address these points.

We are persuaded by the Staff’s argument, and find that this contention does not raise a genuine dispute with the application. Consolidated Petitioners provided no support for the underlying premise of this contention, which seems to be that the ongoing operation has or will drain or contaminate wetlands such that they can no longer provide the economic benefits that a well-functioning wetland could. Indeed, the contention does not claim that the licensed operation has adversely affected wetlands, either within or outside the area covered by the license. Unless Consolidated Petitioners present a genuine dispute regarding whether wetlands have been or will be adversely affected by the existing operation, there can be no need for Crow Butte to consider the economic benefits that might accrue from restoring them.

We therefore conclude that this contention is inadmissible and reverse the Board’s decision to admit it.

¹³⁰ See, e.g., <http://www.adelaide.edu.au/adelaidean/issues/23221/news23241.html> (last visited 4/8/2009). This study, conducted at the University of Adelaide, Australia, concludes that natural wetlands are worth “\$7100 per hectare.”

¹³¹ Consolidated Petition at 28-29, citing LRA at 8.1.2 and 8.2. This section of the Consolidated Petition inserts comments on the application’s economic analysis, but the comments relate to Consolidated Petitioners’ claims regarding foreign ownership and potential shipment of uranium to foreign countries.

¹³² Staff Appeal at 27.

¹³³ LRA at 2-195, 2-208, 7-18.

¹³⁴ *Id.* at 7-17.

¹³⁵ *Id.* at 7-9.

b. Consolidated Petitioners' Technical Contention F (Failure to Include Recent Research)

In Technical Contention F, Consolidated Petitioners claim that the application's description of the geology and seismology¹³⁶ of the area does not include up-to-date research on the subject. Consolidated Petitioners cited portions of the application that use research from the 1980s. Petitioners supported their claim with the opinion of their expert, Dr. LaGarry, who states that much of the research from that time period is outdated:

The recent mapping of the geology of northwestern Nebraska has shown that the simplified "layer cake" concept applied by pre-1990s workers is incorrect, and overestimates the thickness and areal extent of many units by 40-60%. Many units' distributions are heavily influenced by the contours of the ancient landscapes onto which they were deposited. For example, when considered to be the "Basal Chadron Sandstone," the Chamberlain Pass Formation was assumed to have a distribution equal to that of the overlying Chadron Formation. However, the Chamberlain Pass Formation is 1-1.5 million years (Ma) older than the Chadron Formation and has a distribution determined by the ancient topography weathered into the Pierre Shale prior to deposition of the Chamberlain Pass formation.¹³⁷

Petitioners also cited the November 8, 2007 NDEQ letter responding to Crow Butte's aquifer exemption application, which raised the same concern that Crow Butte was not considering recent information that contradicts some of its statements describing the local geology and which addresses the question of whether the mined aquifer is adequately confined.

Crow Butte and Staff argued before the Board that the regulations do not require Crow Butte to consider the research of any particular expert.¹³⁸

The Board found that "the issue before [it] is the reliability of scientific evidence in order for Crow Butte's License Renewal Application to be complete and accurate."¹³⁹ The Board noted that both Dr. LaGarry's opinion and the November 8, 2007 NDEQ letter raised the same concern as that articulated by Consolidated Petitioners — that Crow Butte was ignoring more recent information

¹³⁶ Consolidated Petition at 30, citing LRA § 2.6.

¹³⁷ LaGarry Opinion at 3.

¹³⁸ NRC Staff Response in Opposition to Petitioners' Consolidated Request for Hearing and Petition for Leave to Intervene of Debra White Plume, Thomas K. Cook, Loretta Afraid of Bear Cook, Dayton O. Hyde, Bruce McIntosh, Joe American Horse, Sr., Beatrice Long Visitor Holy Dance, Owe Aku/Bring Back the Way, Afraid of Bear/Cook Tiwahe, American Horse Tiospaye and Western Nebraska Resources Council at 40 (Aug. 25, 2008) (Staff Response to Consolidated Request); Applicant's Response to Petition to Intervene Filed by Consolidated Petitioners at 39 (Aug. 22, 2008) (Applicant's Response to Consolidated Petitioners).

¹³⁹ LBP-08-24, 68 NRC at 739.

concerning geology and hydrology.¹⁴⁰ The Board also cited a report from Dr. Paul Robinson, Director of the Southwest Research and Information Center,¹⁴¹ which was appended to the Consolidated Petition but not specifically cited in support of proposed Technical Contention F.¹⁴² The Board concluded that the “more recent research likely represents more reliable science and thus there is a question regarding whether Crow Butte has simply cherry-picked its supporting data.”¹⁴³

On appeal, both the NRC Staff and Crow Butte object that the contention was inadequately explained and the Board improperly bolstered the contention with its reference to the Robinson Report.¹⁴⁴

We find no clear error in the Board’s contention admissibility determination. Consolidated Petitioners cited to the application and provided expert opinion in support of their claim that Crow Butte’s application uses superannuated data. The Board’s brief reference to a report, attached to the Consolidated Petition but not specifically referenced for this contention, is, in our view, of minimal significance to its overall decision to admit the contention. Further, the reliability of the data concerning the geology and hydrology of the area on which and around Crow Butte’s operation is within the scope — in fact, at the center — of this license renewal proceeding. We therefore defer to the Board’s decision to admit this contention.

c. Foreign Ownership — Consolidated Petitioners’ Miscellaneous Contentions G and K

Consolidated Petitioners proposed two contentions relating to the fact that, although Crow Butte is a U.S. corporation, its parent corporation is a Canadian concern, Cameco Corporation.¹⁴⁵ In Miscellaneous Contention G, Consolidated Petitioners claimed, among various other asserted omissions, that Crow Butte failed to disclose this foreign ownership in violation of our regulatory requirement

¹⁴⁰ *Id.* at 738, 739.

¹⁴¹ Robinson, Comments and Recommendations Regarding the “Application for 2007 License Renewal USNRC Source Materials License SUA-1534 Crow Butte license Area (July 28, 2008) (Robinson Report).

¹⁴² The Board noted that, according to Robinson, the license application uses two Environmental Protection Agency Guidance documents from the 1970s that are out of date and have been superseded. LBP-08-24, 68 NRC at 739.

¹⁴³ *Id.*

¹⁴⁴ Staff Appeal at 28; Crow Butte Appeal at 23.

¹⁴⁵ Crow Butte Resources, Inc. is a Nebraska corporation owned by Cameco US Holdings, Inc., a U.S. corporation, which is held by Cameco Corporation, a Canadian corporation. *See* Crow Butte LRA, 1-2 (Rev. Dec. 2008) (ADAMS Accession No. ML090020026).

that it submit “complete and accurate” information in an application.¹⁴⁶ In their proposed Miscellaneous Contention K, Consolidated Petitioners claimed that the NRC has no authority to issue the renewed license to a foreign-owned entity:

Lack of Authority to Issue License to US Corporation which is 100% owned, controlled and dominated by foreign interests; voidability of mineral and real estate leases due to Nebraska Alien Ownership Act.¹⁴⁷

The Board admitted Consolidated Petitioners’ Miscellaneous Contention G with respect to its failure to disclose the foreign parentage.¹⁴⁸ The Board admitted Miscellaneous Contention K with respect to two questions: First, is there an absolute prohibition on issuing a source materials license to a company controlled by foreign interests? And, if not, does the foreign ownership raise questions of whether the license is “inimical” to the common defense and national security?¹⁴⁹

In admitting these contentions, the Board considered Atomic Energy Act of 1954, as amended (AEA), § 182a — a general provision which indicates that the citizenship of an applicant may be considered in the context of a license application:

Each application for a license hereunder shall be in writing and shall specifically state such information as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant, the citizenship of the applicant, or any other qualification of the applicant as the Commission may deem appropriate for the license.¹⁵⁰

The Board noted that by regulation, neither a uranium enrichment facility nor a nuclear power plant may be owned, controlled, or dominated by a foreign entity,¹⁵¹ although no regulation specifically prohibits this with respect to a

¹⁴⁶ 10 C.F.R. § 40.9(a) (“Information provided to the Commission by an applicant for a license or by a licensee . . . shall be complete and accurate in all material respects”). Petitioners also alleged that the application violated this provision because it omitted other bits of information, including a so-called “whistleblower letter” from 1989, but the Board found only the failure to disclose foreign ownership to be material. LBP-08-24, 68 NRC at 748-49.

¹⁴⁷ Consolidated Petition at 36.

¹⁴⁸ LBP-08-24, 68 NRC at 747-48. The Board rejected other “bases” of proposed Contention G, including Consolidated Petitioners’ claims that Crow Butte “suppressed” geologic data (*id.* at 748) and that it “failed to disclose” the direction of flow of the White River (*id.* at 748-49).

¹⁴⁹ *Id.* at 753. The Board rejected the claim relating to a Nebraska state law prohibiting foreign entities from owning land in the state. *Id.* at 751.

¹⁵⁰ AEA § 182a, 42 U.S.C. § 2232a.

¹⁵¹ 10 C.F.R. § 40.38 (enrichment facility); 10 C.F.R. § 50.38 (nuclear power plant) (“Any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the
(Continued)

materials license such as the one in this proceeding. Materials license regulations, in contrast, contain no express prohibition, but require the Staff to make a finding that the issuance of the license “will not be inimical to the common defense and security.”¹⁵² The Board cited Commission rulings in which we indicated that, with respect to a production or utilization facility, foreign ownership and control would be “inimical to the common defense and security.”¹⁵³

The Board concluded that Crow Butte’s foreign parentage was a material issue of fact that should have been disclosed in the application, and which raises a question of whether the license is “inimical to the common defense and security.” On this basis, it admitted Consolidated Petitioners’ Miscellaneous Contentions G and K.

Crow Butte maintains that it notified NRC of the change in ownership years ago when the change in ownership took place, and was informed at that time that a license amendment was not required.¹⁵⁴

Whether or not Crow Butte should have given a more complete description of its corporate structure in its original application, as Consolidated Petitioners’ Miscellaneous Contention G maintains, is a question that is now moot, and we need not address it. In December 2008, Crow Butte amended its license application to include a discussion of its corporate structure, including foreign ownership interests.¹⁵⁵ It then moved for summary disposition of Miscellaneous Contention G, arguing that there exists no genuine issue as to any material fact relevant to

Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license”). *See* AEA § 103(d) (“No license [for a production or utilization facility] may be issued to an alien or any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government”).

¹⁵² LBP-08-24, 68 NRC at 753, citing 10 C.F.R. § 40.32(d). *See* AEA § 103(d).

¹⁵³ LBP-08-24, 68 NRC at 753, citing *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), 4 AEC 9, 12 (1967). In *Turkey Point* the Commission rejected the argument that this provision of the AEA requires nuclear reactors to protect against attacks or sabotage by “enemies of the United States,” and instead stated that the “common defense and security standard . . . refer[s] principally to: the safeguarding of special nuclear material; the absence of foreign control over the applicant; the protection of Restricted Data; and the availability of special nuclear material for defense needs.” *Id.* at 12-13.

¹⁵⁴ *See* Letter from Stephen P. Collings, Senior Vice President — Operations, Crow Butte Resources Inc., to Thomas Essig, Chief, Uranium Recovery Branch, Office of Nuclear Material Safety and Safeguards, NRC, Re: Docket No. 40-8943, Source Materials License SUA-1534, Change of Ownership (Apr. 7, 2000) (ADAMS Accession No. ML080390182); letter from Thomas H. Essig to Stephen P. Collings, Subject: License Amendment is not needed for change in ownership, License No. SUA-1534 (May 31, 2000) (ADAMS Accession No. ML003711700).

¹⁵⁵ Letter from Stephen P. Collings, President, Crow Butte Resources, to Charles L. Miller, Director, Office of Federal and State Materials and Environmental Management Programs, NRC, at 1 (Dec. 16, 2008) (ADAMS Accession No. ML090020026).

the contention; its motion was supported by NRC Staff.¹⁵⁶ Although the Board has not yet ruled on the motion for summary disposition, in our view summary disposition of Miscellaneous Contention G is appropriate. The contention was one of “omission,” and that omission has been cured. We therefore direct the Board, *sua sponte*, to grant the motion for summary disposition of Miscellaneous Contention G.¹⁵⁷

As for Consolidated Petitioners’ Miscellaneous Contention K, there is no statutory or regulatory bar on a foreign ownership or control of a source materials license, whether as a licensee or as a parent entity. In addition, we find the admission of the second “issue” of Miscellaneous Contention K to be unsupported. Consolidated Petitioners failed to show any basis why renewing the license would be “inimical” to the common defense and security. Each of Consolidated Petitioners’ arguments relating to inimicality relates to various scenarios wherein Crow Butte, at the behest of Cameco, sells the unprocessed uranium to an “enemy of the United States.” But, as the Staff and Crow Butte pointed out in subsequent briefs before the Board, any export of uranium would require a separate application for an export license.¹⁵⁸ Such an export license application carries with it an opportunity to seek to intervene and request a hearing.¹⁵⁹ The instant proceeding involves only renewal of the existing license to possess and use source material, not the export of source material to any country outside the United States.¹⁶⁰

¹⁵⁶ Motion for Summary Disposition of Miscellaneous Contention G (Jan. 28, 2009). NRC Staff’s Answer in Support of Applicant’s Motion for Summary Disposition of Miscellaneous Contention G (Feb. 10, 2009). The Consolidated Petitioners opposed, arguing that grant of summary disposition on Miscellaneous Contention G would not expedite the proceeding, which, they reasoned, is “inextricably connected” to Miscellaneous Contention K. Intervenor’s Answer Opposing Summary Disposition of Misc. Contention G — Concealment of Foreign Ownership (Feb. 10, 2009).

¹⁵⁷ It has been several months since Crow Butte amended its license renewal application and the Consolidated Petitioners have not sought to amend their contention to address the new material. An attempt to amend Miscellaneous Contention G at this point would be well out of time.

¹⁵⁸ Applicant’s Brief Regarding Miscellaneous Contention K at 9-10 (Jan. 21, 2009); NRC Staff’s Brief in Response to Consolidated Petitioners’ Miscellaneous Contention K (Jan. 21, 2009).

¹⁵⁹ See generally 10 C.F.R. § 110.82.

¹⁶⁰ Although the Consolidated Petitioners argue, throughout their brief to the Board on this subject, that exporting uranium would remove it from U.S. restrictions and render it liable to fall into the hands of enemies of the United States, they do not explain why a foreign-owned uranium producer would be any more likely than a U.S.-owned company to seek an export license. See, e.g., Petitioners’ Brief Re: Misc. Contention K — Foreign Ownership (Jan. 21, 2009) (“[T]he export of the Yellowcake outside US control is contrary to nuclear security and . . . Applicant has attempted to create a loophole which is ripe for abuse by . . . bad actors.” *Id.* at 17. “Our task is to make sure the IAEA investigators don’t ever need to show up at the offices at the Crow Butte mine to find out how Nebraskan Yellowcake was weaponized by bad actors that got hold of it after it left the hands of the Nebraskans that work the

(Continued)

In summary, we find that the Board erred in admitting for hearing Consolidated Petitioners' Miscellaneous Contention K. As discussed above, we need not reach the admissibility of Miscellaneous Contention G, as it is now moot.

d. Arsenic — Consolidated Petitioners' Safety Contention A

We find that the Board erred in admitting the late-filed Consolidated Petitioners' Safety Contention A. This contention fails to show a genuine dispute within the scope of the license renewal proceeding.

Consolidated Petitioners based their proposed late-filed contention on a medical study released in August 2008,¹⁶¹ which concludes that there is a link between low-level exposure to inorganic arsenic and diabetes.¹⁶² Consolidated Petitioners further argued that there is a link between diabetes and pancreatic cancer.¹⁶³ Finally, they submitted an affidavit, executed by their own attorney, stating his belief that the Pine Ridge, South Dakota, and Chadron, Nebraska populations have a disproportionately high incidence of these diseases.¹⁶⁴ Consolidated Petitioners attribute the allegedly high rate of diabetes and pancreatic cancer to arsenic exposures from Crow Butte's operation.

Summing up the entire pleading, the Board reframed the contention as Safety Contention A:

The oxidation of uranium due to Crow Butte's mining operations releases low levels of arsenic that contaminate[] drinking water. This contamination threatens the health and safety of the public in that it contributes to an increase in diabetes and pancreatic cancer. The AEA and NRC regulations require Crow Butte's operations to be conducted without harm to the public health and safety.¹⁶⁵

The Board observed that the contention raises concerns similar to those in the Tribe's Environmental Contention A, but is a safety contention to be resolved

mine." *Id.* at 21. "[T]he issuance of a source materials license to a foreign controlled entity is *per se* inimical to the common defense and security of the United States due to the nuclear threats posed by nuclear smuggling and proliferation of dual-use items that enable enrichment and the construction of atomic bombs by terrorists and rogue nations." *Id.* at 38).

¹⁶¹ Ana Navas-Acien, et al., *Arsenic Exposure and Prevalence of Type 2 Diabetes in US Adults*, 300 *J. Am. Med. Ass'n* 814 (Aug. 20, 2008) (Arsenic Study).

¹⁶² Petition for Leave to File New Contention Re: Arsenic (Sept. 22, 2008) (Arsenic Petition).

¹⁶³ Arsenic Petition at 8, citing Suresh T. Chari et al., *Probability of Pancreatic Cancer Following Diabetes: a Population-Based Study*, 129 *Gastroenterology* No. 2, 504 (Aug. 2005).

¹⁶⁴ Arsenic Petition at 3-4, Affidavit of David C. Frankel (Sept. 22, 2008) (attached to Arsenic Petition).

¹⁶⁵ LBP-08-27, 68 NRC at 957.

under the AEA rather than NEPA.¹⁶⁶ Because of this similarity, the Board stated that it might combine these two contentions for a single evidentiary presentation at a hearing.¹⁶⁷

On appeal, both the NRC Staff and Crow Butte argue that the contention did not meet the timeliness criteria in 10 C.F.R. § 2.309(f)(2), and fails to satisfy the late filing factors in 10 C.F.R. § 2.309(c)(1).¹⁶⁸ Further, both argue that Safety Contention A is inadmissible because Consolidated Petitioners failed to satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1).¹⁶⁹

In our view, Safety Contention A is flawed because it lacks adequate support and does not demonstrate a genuine dispute with the application. First, Consolidated Petitioners mischaracterize the license renewal application as showing that Crow Butte is “aware” that its uranium recovery operation “causes . . . release of Arsenic in to the . . . Brule aquifer,”¹⁷⁰ but the cited portion of the application does not concede that such releases have occurred.¹⁷¹ As stated by Crow Butte, the Arsenic Petition does not provide information, beyond the Consolidated Petitioners’ assertions, to suggest that Crow Butte’s operations have resulted in arsenic contamination outside the operations area.

Consolidated Petitioners’ contention is fundamentally unsupported. Consolidated Petitioners appear to seek to litigate the adverse health effects of exposure to arsenic, as if it had already been shown that (1) the Applicant’s operation has released, and will continue to release, arsenic into the groundwater, and (2) arsenic released from Crow Butte’s operation has already reached as far as the Pine Ridge Reservation, and (3) people living in these areas have been exposed to arsenic released from Crow Butte’s operation sufficient to develop the adverse health effects about which Consolidated Petitioners are concerned.¹⁷² But Consolidated Petitioners do not provide any alleged facts or expert opinion on these matters sufficient to demonstrate a genuine dispute.¹⁷³ Because the Consolidated

¹⁶⁶ *Id.* at 957 n.32.

¹⁶⁷ *Id.* at 957 n.33.

¹⁶⁸ Staff Arsenic Appeal at 12-13; Crow Butte Arsenic Appeal at 3-8.

¹⁶⁹ Staff Arsenic Appeal at 17-20; Crow Butte Arsenic Appeal at 8-12.

¹⁷⁰ Arsenic Petition at 8, citing LRA § 2.9.6.

¹⁷¹ As noted by Crow Butte, the cited reference (to section 2.9.6 of the application) describes baseline soil sampling and the uranium recovery process.

¹⁷² *See, e.g.*, Arsenic Petition at 3, 5, 7.

¹⁷³ Consolidated Petitioners mischaracterize the Board’s ruling on standing as a finding that the contamination has already occurred: “Prior findings by the Board in LBP-08-06 show that petitioners have met their initial burden that there exist fractures and faults and pathways along [t]he White River which lead to the human and environmental exposure to increased Arsenic levels from Applicant’s mine.” Arsenic Petition at 8. (We observe that LBP-08-6 is the ruling on standing and contentions in the NTEA proceeding, rather than this license renewal proceeding, but at any rate neither board found these claims to have been proven).

Petitioners' fundamental premise — that Crow Butte's licensed activities have exposed petitioners and others to arsenic — is unsupported, our consideration of the contention must end there.

Even assuming that the Consolidated Petitioners had demonstrated a dispute as to whether arsenic would be released from the site as a result of ISL uranium recovery operations during the period of the renewed license, there are gaps in Consolidated Petitioners' reasoning. First, Consolidated Petitioners assert that the findings of the study explain the asserted prevalence of diabetes at Chadron, Nebraska and the Pine Ridge reservation, but provide no facts or expert opinion to buttress the argument. For example, they do not argue that persons in Chadron, or on the reservation, are exposed to inorganic arsenic in quantities comparable to those of the Arsenic Study's subjects. And they do not exclude other factors that may cause diabetes. In addition, Consolidated Petitioners offer the unsubstantiated arguments of counsel regarding the increased incidence of pancreatic cancer in Chadron.¹⁷⁴ Without more, therefore, Consolidated Petitioners' arguments are speculative, and do not form the basis for a litigable contention.

Because this contention fails to satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1), we need not reach the procedural arguments on lateness. We note, however, that Crow Butte's timeliness arguments help illustrate why the contention is substantively inadmissible for failing to show a genuine dispute with the application. Crow Butte argues that the study discussing the link between low-level arsenic exposure and diabetes is not new information supporting a late-filed contention, because the various adverse health effects of arsenic exposure have long been known.¹⁷⁵ Crow Butte, in other words, does not dispute that the release of arsenic into public drinking water would be harmful. Crow Butte maintains that its operations have not and will not release contaminants such as arsenic — a broad issue that some of the admitted contentions already address in more specific form. But there is nothing in the Arsenic Study that tends to show that Crow Butte's operation is likely to, or already has, released arsenic. The Arsenic Study, therefore, does not include any new information within the scope of this adjudication.

We therefore conclude that the Board erred in its ruling in LBP-08-27, admitting a new contention relating to the health effects of arsenic exposure.

¹⁷⁴ Arsenic Petition at 3-4.

¹⁷⁵ Crow Butte Resources, Inc.'s Response to Consolidated Petitioners' Late-Filed Contention at 4 (Oct. 14, 2008); Crow Butte Arsenic Appeal at 4.

C. Consolidated Petitioners' Appeal

Consolidated Petitioners appeal the Board's decision with respect to eleven of the nineteen proposed contentions that the Board rejected.¹⁷⁶

We find that Consolidated Petitioners' appeal is not yet ripe under our rules of practice. Our regulations permit interlocutory appeal only in specific, extremely limited circumstances.¹⁷⁷ Section 2.311, which governs Crow Butte's and the Staff's instant appeals, allows a party to appeal a ruling on contention admissibility only if (a) the order wholly denies a petition for leave to intervene (that is, the order denies the petitioner's standing or the admission of all of a petitioner's contentions), or (b) a party other than the petitioner alleges that a petition for leave to intervene or a request for hearing should have been wholly denied. Because the Consolidated Petitioners were granted a hearing, their appeal is treated under our rules as a request for interlocutory review, governed by the general provisions for interlocutory review, 10 C.F.R. § 2.341(f)(2).¹⁷⁸ That section provides that review of the presiding officer's decision will be granted where the decision either "[t]hreatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review," or "[a]ffects the basic structure of the proceeding in a pervasive or unusual manner."

The Consolidated Petitioners do not address the standard governing interlocutory appeal. But even had the Consolidated Petitioners addressed the standard, it does not appear a convincing case could be made for interlocutory review. Our case law is clear that "the rejection or admission of a contention, where the Petitioner has been admitted as a party and has other contentions pending, neither constitutes serious and irreparable impact, nor affects the 'basic structure of the proceeding in a pervasive and unusual manner.'" ¹⁷⁹ However, Consolidated Petitioners will have the opportunity to appeal the Board's contention admissibility rulings at the end of the case pursuant to 10 C.F.R. § 2.341(b).¹⁸⁰

¹⁷⁶ Consolidated Petitioners' Appeal.

¹⁷⁷ See 10 C.F.R. § 2.311.

¹⁷⁸ This rule reflects the Commission's general policy to minimize interlocutory review. See *Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 23 (1998) (referencing 10 C.F.R. § 2.714a, the substantively identical predecessor to 10 C.F.R. § 2.311).

¹⁷⁹ *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), CLI-08-7, 67 NRC 187, 192 (2008), citing *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-04-31, 60 NRC 461, 466-67 (2004). See also *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-07-2, 65 NRC 10, 12 (2007); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-2, 51 NRC 77, 79-80 (2000).

¹⁸⁰ See, e.g., *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-873, 26 NRC 154 (1987).

III. CONCLUSION

In conclusion, we *affirm* the Board's ruling on standing with respect to all petitioners, with the exception of Owe Aku and WNRC. With respect to those two organizations, we *remand* the matter to the Board so it may give them the opportunity to provide affidavits authorizing representation in this proceeding.

We *reverse* the Board's decision to admit the following contentions: Tribe Environmental Contention B, Tribe Environmental Contention E, Consolidated Petitioners' Environmental Contention E, Consolidated Petitioners' Miscellaneous Contention K, and Consolidated Petitioners' Safety Contention A. We further direct the Board to grant Crow Butte's motion for summary disposition of Consolidated Petitioners' Miscellaneous Contention G. We *affirm* the Board's admission of the remaining contentions. Finally, we *reject* Consolidated Petitioners' appeal, without prejudice to their ability to file a petition for review following the issuance of the Board's final initial decision in this matter.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland
this 18th day of May 2009.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARDS

Before Administrative Judges:

BOARD CAB-01	BOARD CAB-02	BOARD CAB-03
(ASLBP No. 09-876-HLW)	(ASLBP No. 09-877-HLW)	(ASLBP No. 09-878-HLW)
William J. Froehlich, Chairman	Michael M. Gibson, Chairman	Paul S. Ryerson, Chairman
Thomas S. Moore	Alan S. Rosenthal	Michael C. Farrar
Richard E. Wardwell	Nicholas G. Trikouros	Mark O. Barnett

In the Matter of

Docket No. 63-001-HLW

**U.S. DEPARTMENT OF ENERGY
(High-Level Waste Repository)**

May 11, 2009

In this proceeding on the Application by the Department of Energy seeking authorization to construct a geologic repository for high-level nuclear waste (HLW) at Yucca Mountain, in Nye County, Nevada, the Construction Authorization Boards conclude that, having established the requisite standing and proffering admissible contentions, eight petitioners, State of Nevada, Nuclear Energy Institute, Nye County, Churchill, Esmeralda, Lander, and Mineral Counties, State of California, Clark County, Inyo County, and White Pine County, are admitted as parties to the proceeding. Two of the petitioners, the Joint Timbisha Shoshone Tribal Group and the Native Community Action Council, are denied party status until they can demonstrate compliance with the Licensing Support Network (LSN) requirements. The petition of Caliente Hot Springs Resort is denied, having failed to make the requisite standing showing.

RULES OF PRACTICE: HLW REPOSITORY (PETITIONS TO INTERVENE)

To intervene as a party in the HLW proceeding, a petitioner must: (1) establish

that it has standing; (2) be able to demonstrate substantial and timely LSN compliance; and (3) proffer at least one admissible contention.

RULES OF PRACTICE: HLW REPOSITORY (STANDING)

In the HLW proceeding, the Commission conferred standing as of right on certain parties. Pursuant to 10 C.F.R. § 2.309(d)(2)(iii), intervention is permitted by the state and local governmental body (county, municipality, or other subdivision) in which the geologic repository operations area (GROA) is located, and by any affected federally recognized Indian Tribe (AIT), as defined in 10 C.F.R. Part 63, if the contention admission requirements in 10 C.F.R. § 2.309(f) are satisfied with respect to at least one contention. Additionally, in the Notice of Hearing, the Commission clarified that any “affected unit of local government” (AULG), as defined in section 2 of the Nuclear Waste Policy Act of 1982, as amended (NWPA), need not address standing, but rather shall be considered a party provided that it files at least one admissible contention in accordance with 10 C.F.R. § 2.309(f).

RULES OF PRACTICE: HLW REPOSITORY (STANDING)

Where a petitioner is not conferred automatic standing, the petition to intervene must provide information supporting the petitioner’s claim to standing, including: (1) the nature of the petitioner’s right under the governing statutes to be made a party; (2) the nature of the petitioner’s interest in the proceeding; and (3) the possible effect of any decision or order on the petitioner’s interest. In determining whether an individual or organization should be granted party status “as of right,” the Nuclear Regulatory Commission (NRC) applies judicial standing concepts that require a participant to establish: (1) 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 statutes (e.g., the Atomic Energy Act of 1954 (AEA), the National Environmental Policy Act of 1969 (NEPA)); (2) the injury is fairly traceable to the challenged action; and (3) the injury is likely to be redressed by a favorable decision.

RULES OF PRACTICE: HLW REPOSITORY (ORGANIZATIONAL STANDING)

An organization seeking to intervene in a representational capacity must: (1) demonstrate that the licensing action will affect at least one of its members; (2) identify that member by name and address; and (3) show that it is authorized by that member to request a hearing on his or her behalf. Additionally, the

member must qualify for standing in his or her own right, and the interests that the organization seeks to protect must be germane to its own purpose. Neither the petitioner's contentions nor the requested relief, however, must require the participation of an individual member in the proceeding.

RULES OF PRACTICE: HLW REPOSITORY (STANDING, INJURY IN FACT)

In the HLW proceeding, a state can meet the requirements for standing as a matter of right, based on the threat posed by transportation of radioactive waste through that state.

RULES OF PRACTICE: HLW REPOSITORY (REPRESENTATIONAL STANDING)

When an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization.

RULES OF PRACTICE: HLW REPOSITORY (LSN CERTIFICATION)

Section 2.1009(b) requires a certification to the Pre-License Application Presiding Officer (PAPO) Board that the party or potential party has complied with the implementation procedures of section 2.1009(a)(2) and that "to the best of his or her knowledge, the documentary material specified in § 2.1003 has been identified and made electronically available."

RULES OF PRACTICE: HLW REPOSITORY (LSN COMPLIANCE)

In the event a petitioner is found not to be in substantial and timely compliance with the LSN requirements, section 2.1012(b)(2) allows that petitioner to request party status upon a subsequent showing of compliance, although any grant of a request is "conditioned on accepting the status of the proceeding at the time of admission."

RULES OF PRACTICE: HLW REPOSITORY (CONTENTION ADMISSIBILITY)

An admissible contention must: (1) provide a specific statement of the legal or factual issue sought to be raised; (2) provide a brief explanation of the basis

for the contention; (3) demonstrate that the issue raised is within the scope of the proceeding; (4) demonstrate that the issue raised 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 opinions that support the petitioner's position and on which the petitioner intends to rely at the hearing, including references to the specific sources and documents on which the petitioner intends to rely; and (6) provide sufficient information to show that a genuine dispute exists on a material issue of law or fact, including references to specific portions of the application that the petitioner disputes or, if the application is alleged to be deficient, the identification of such deficiencies and the supporting reasons for this allegation.

**RULES OF PRACTICE: HLW REPOSITORY (CONTENTION
ADMISSIBILITY)**

An admissible contention cannot challenge an existing Commission regulation. Absent a waiver, no rule or regulation of the Commission is subject to attack in any adjudicatory proceeding. This rule bars contentions that: (1) advocate more or less stringent requirements than the NRC rules impose; (2) otherwise seek to litigate a generic determination that the Commission has established by rulemaking; or (3) raise a matter that is or is about to become the subject of rulemaking.

**RULES OF PRACTICE: HLW REPOSITORY (CONTENTION
ADMISSIBILITY)**

In substantially revising its contention admissibility requirements in 1989, the Commission sought to preclude a contention from being admitted where an intervenor has no facts to support its positions, but rather hopes to use discovery or cross-examination as a "fishing expedition." The Commission therefore amended its rules to require that contentions have at least some minimal factual and legal foundation in support. As the Commission has emphasized, the contention requirements were never intended to be turned into a fortress to deny intervention.

**RULES OF PRACTICE: HLW REPOSITORY (CONTENTIONS,
NEPA)**

In addition to the usual contention admissibility requirements set forth in section 2.309(f)(1), factual NEPA contentions in the HLW proceeding must be supported by one or more competent affidavits and such affidavits must

present significant and substantial information that, if true, would render the DOE environmental statements inadequate.

RULES OF PRACTICE: HLW REPOSITORY (CONTENTIONS, NEPA)

The NWPA has limited, but not eliminated, the scope of the NRC's NEPA responsibilities. The Commission has addressed those limitations by imposing special pleading requirements for all NEPA contentions. If those requirements are satisfied, Boards cannot dismiss otherwise admissible contentions at this stage of the proceeding.

RULES OF PRACTICE: HLW REPOSITORY (CONTENTIONS, NEPA/TRANSPORTATION)

The NRC is obligated under NEPA to analyze and to disclose all environmental effects of the proposed repository, not just the effects of those portions of the repository over which the NRC has direct regulatory control. Contentions that address such environmental effects, including transportation-related effects, may not be dismissed at the contention admissibility stage if they satisfy the Commission's special pleading requirements for HLW NEPA contentions.

RULES OF PRACTICE: HLW REPOSITORY (CONTENTIONS, SUPPORTING INFORMATION OR EXPERT OPINION)

A petitioner does not fail to satisfy 10 C.F.R. § 2.309(f)(1)(v) and (vi) by providing expert affidavits that adopt assertions made in the body of the contention.

RULES OF PRACTICE: HLW REPOSITORY (CONTENTIONS, SUPPORTING INFORMATION OR EXPERT OPINION)

An expert's opinion need not always be accompanied by a specific reference to supporting sources and documents. Section 2.309(f)(1)(v) requires "references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position." It says nothing about references upon which an expert might rely in offering expert opinion. Nor can it reasonably be interpreted to require a petitioner to produce, at the contention admissibility stage, its exhibit list for a hearing.

**RULES OF PRACTICE: HLW REPOSITORY (CONTENTION
ADMISSIBILITY)**

The standards embodied in section 2.309(f)(1) have been in existence, for the most part, since 1989. If, in subsequently promulgating Subpart J containing the LSN provisions, the Commission had wanted to raise the standard for the admissibility of contentions because of the LSN, it could have done so explicitly, as it did in 10 C.F.R. § 51.109(a)(2) with respect to the admissibility of contentions raising NEPA issues. On the contrary, when promulgating Subpart J, the Commission expressly provided that section 2.309 was to remain unchanged.

**RULES OF PRACTICE: HLW REPOSITORY (CONSTRUCTION
AUTHORIZATION STANDARD)**

The suggestion that “reasonable expectation,” 10 C.F.R. § 63.31(a)(2), connotes less exacting obligations than does “reasonable assurance,” 10 C.F.R. § 63.31(a)(1), invokes a distinction without a difference. The NRC has repeatedly indicated that “reasonable expectation” and “reasonable assurance” mean virtually the same thing.

**RULES OF PRACTICE: HLW REPOSITORY (CONTENTIONS,
SCOPE)**

Under 10 C.F.R. § 2.309(f)(1)(i), a contention may raise an issue of law or fact. A purely legal issue contention need not allege “facts” under section 2.309(f)(1)(v).

**RULES OF PRACTICE: HLW REPOSITORY (CONTENTIONS,
LEGAL ISSUE/NEPA)**

The requirement that a NEPA contention be accompanied by one or more affidavits, pursuant to 10 C.F.R. § 51.109(a)(2), ought not apply to a legal issue contention under NEPA, as that section requires only affidavits “which set forth factual and/or technical bases for the claim.” There is no requirement that legal arguments be presented by affidavit.

RULES OF PRACTICE: HLW REPOSITORY (SCOPE)

The term “person” is defined under section 11(s) of the AEA to include not only private entities, but also “any . . . Government agency other than the Commission,” and a “person,” as the term is used throughout the AEA, is required to be licensed in order to conduct nuclear activities. Thus, in terms of

the Commission’s treatment of private entities and government actors under the AEA, there is no difference.

RULES OF PRACTICE: HLW REPOSITORY (SCOPE)

The NWPA explicitly provides that it does not diminish any part of the Commission’s authority to review license applications and issue licenses under the AEA.

RULES OF PRACTICE: HLW REPOSITORY (SCOPE)

Although the Commission has not promulgated a rule or regulation requiring an applicant to include information in its application regarding its character pursuant to AEA § 182(a), NRC case law makes clear that an applicant’s character is appropriate for consideration in a licensing proceeding.

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MEMORANDUM AND ORDER
(Identifying Participants and Admitted Contentions)

Before these three Construction Authorization Boards (CABs or Boards) are twelve petitions to intervene in the proceeding on the Application (Application) by the Department of Energy (DOE or Applicant) seeking authorization to construct a geologic repository for high-level nuclear waste (HLW) at Yucca Mountain, in Nye County, Nevada. Collectively, the petitions proffer 318 proposed contentions for adjudication.

DOE opposes all petitions in their entirety. The Nuclear Regulatory Commission Staff (NRC Staff) opposes the majority of petitions, but does not oppose the petitions of the State of Nevada (Nevada), Nye County (Nye), and the amended petition of Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation (TSO). The NRC Staff opposes 216 of the 239 contentions proffered, collectively, by Nevada, Nye, and TSO in its amended petition.

In addition, Eureka County, Nevada (Eureka) and Lincoln County, Nevada (Lincoln) filed unopposed requests to participate as interested governmental bodies under 10 C.F.R. § 2.315(c).

The three Boards were constituted to manage the first phase of this complex proceeding.¹ In accordance with the Commission's regulations and applicable law, the Boards reviewed all intervention petitions with an important, but limited purpose, that is, to begin to simplify the proceeding by identifying matters that merit further consideration and rejecting at the outset: (1) petitions by participants that lack standing; (2) petitions by participants that were unable to demonstrate timely and substantial compliance with applicable Licensing Support Network (LSN) requirements; and (3) contentions that fail to satisfy applicable requirements.

The three Boards set forth their independent rulings in this Memorandum and Order. The Chief Administrative Judge assigned Nevada's petition to CAB-01. Because of the number of proposed contentions submitted by Nevada, however, the Chief Administrative Judge allocated Nevada's 229 contentions among the Boards as follows:

CAB-01: Safety Contentions 1-67; NEPA Contentions 1-8; Miscellaneous Contentions 1-2.

CAB-02: Safety Contentions 68-134; NEPA Contentions 9-16; Miscellaneous Contentions 3-4.

CAB-03: Safety Contentions 135-201; NEPA Contentions 17-23; Miscellaneous Contention 5.

The Chief Administrative Judge assigned each of the other petitions and associated contentions to a single Board, as follows:

CAB-01: Nye County; Clark County; White Pine County; and Caliente Hot Springs Resort.

CAB-02: State of California; Nevada Counties of Churchill, Esmeralda, Lander, and Mineral; Native Community Action Council; Timbisha Shoshone Tribe; and the Timbisha Shoshone Yucca Mountain Oversight Program.

CAB-03: Inyo County; and the Nuclear Energy Institute.

Each Board adopts as its own the discussion that follows concerning the legal standards that govern the Boards' decisions and the conclusions reached on the overarching legal issues. Each Board has independently ruled, however, upon the petitions and contentions for which it is responsible.

Collectively, through their independent rulings on assigned matters, the three

¹ See Department of Energy; Establishment of Atomic Safety and Licensing Boards, 74 Fed. Reg. 4477 (Jan. 26, 2009).

Boards find that eight petitions should be granted. One petition — that of Caliente Hot Springs Resort — must be denied, because the petitioner failed to demonstrate standing.

Two original petitioners — the Timbisha Shoshone Tribe and TSO — subsequently agreed to be treated as a single participant. They would have been admitted as a party on that basis, except for their failure to demonstrate substantial and timely compliance with the requirements of the LSN. The resulting entity, however, will be granted party status at such time as it can demonstrate LSN compliance. Finally, the Native Community Action Council would have been admitted as a party, except for its failure to demonstrate substantial and timely LSN compliance. It likewise will be granted party status at such time as it can demonstrate LSN compliance.

The unopposed requests of Eureka and Lincoln to participate as interested governmental bodies are granted.

I. BACKGROUND

On June 3, 2008, DOE submitted the Application to the NRC. The NRC Staff accepted the Application for docketing on September 8, 2008.² The NRC Staff also determined that it is practicable to adopt, with further supplementation, the Environmental Impact Statement (EIS) and supplements prepared by DOE.³

The Commission published a hearing notice on October 22, 2008.⁴ The hearing notice required any person whose interests might be affected by this proceeding and who wished to participate as a party to file a petition for leave to intervene within 60 days of the notice, in accordance with 10 C.F.R. § 2.309.

On or before December 22, 2008, timely petitions were filed by: (1) Nevada;⁵ (2) the Nuclear Energy Institute (NEI);⁶ (3) Nye;⁷ (4) Churchill, Esmeralda,

² Department of Energy; Notice of Acceptance for Docketing of a License Application for Authority to Construct a Geologic Repository at a Geologic Repository Operations Area at Yucca Mountain, NV, 73 Fed. Reg. 53,284 (Sept. 15, 2008).

³ See U.S. Nuclear Regulatory Commission Staff's Adoption Determination Report for the U.S. Department of Energy's Environmental Impact Statements for the Proposed Geologic Repository at Yucca Mountain (Sept. 5, 2008) (ADAMS Accession No. ML082420342).

⁴ U.S. Department of Energy (High Level Waste Repository); Notice of Hearing and Opportunity to Petition for Leave to Intervene on an Application for Authority to Construct a Geologic Repository at a Geologic Repository Operations Area at Yucca Mountain, 73 Fed. Reg. 63,029 (Oct. 22, 2008) [Notice of Hearing].

⁵ State of Nevada's Petition to Intervene as a Full Party (Dec. 19, 2008) [Nevada Petition].

⁶ The Nuclear Energy Institute's Petition to Intervene (Dec. 19, 2008) [NEI Petition].

⁷ Nye County, Nevada Petition to Intervene and Contentions (Dec. 19, 2008) [Nye Petition].

Lander, and Mineral Counties (jointly) (Nevada 4 Counties);⁸ (5) the State of California (California);⁹ (6) the Native Community Action Council (NCA);¹⁰ (7) the Timbisha Shoshone Tribe (TIM);¹¹ (8) Clark County (Clark);¹² (9) Inyo County (Inyo);¹³ (10) White Pine County (White Pine);¹⁴ (11) TSO;¹⁵ and (12) Caliente Hot Springs Resort (Caliente).¹⁶ Since filing its initial petition, TSO has sought to file an amended petition.¹⁷ Also, TIM and TSO have sought and obtained authorization to merge their respective efforts in this proceeding and to represent jointly the Timbisha Shoshone Tribe, hereinafter Joint Timbisha Shoshone Tribal Group (JTS).¹⁸ Eureka and Lincoln filed requests to participate as interested governmental participants in accordance with 10 C.F.R. § 2.315(c).¹⁹ On or before

⁸ Nevada Counties of Churchill, Esmeralda, Lander and Mineral Petition to Intervene (Dec. 19, 2008) [Nevada 4 Counties Petition].

⁹ State of California's Petition for Leave to Intervene in the Hearing (Dec. 20, 2008) [California Petition]. Although California appears to have proffered 25 NEPA contentions, there is no CAL-NEPA-006.

¹⁰ Native Community Action Council Petition to Intervene as a Full Party (Dec. 22, 2008) [NCA Petition]. Although in previous orders and at oral argument we referred to the Native Community Action Council as NCAC, we will henceforth identify it by its designated three-letter acronym NCA.

¹¹ Timbisha Shoshone Tribe's Petition for Leave to Intervene in the Hearing (Dec. 22, 2008) [TIM Petition].

¹² Clark County, Nevada's Request for Hearing, Petition to Intervene and Filing of Contentions (Dec. 22, 2008) [Clark Petition].

¹³ Petition for Leave to Intervene by the County of Inyo, California on an Application by the U.S. Department of Energy for Authority to Construct a Geologic High-Level Waste Repository at a Geologic Repository Operations Area at Yucca Mountain, Nevada (Dec. 22, 2008) [Inyo Petition].

¹⁴ White Pine County's Request for Hearing and Petition for Leave to Intervene Including Supporting Contentions on the Application by the U.S. Department of Energy for Authority to Construct a Geologic Repository at a Geologic Repository Operations Area at Yucca Mountain (Dec. 22, 2008).

¹⁵ Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation Petition to Intervene as a Full Party (Dec. 22, 2008) [TSO Petition]. Although in previous orders and at oral argument we referred to the Timbisha Shoshone Yucca Mountain Oversight Program as TOP, we will henceforth identify it by its designated three-letter acronym TSO.

¹⁶ Caliente Hot Springs Resort — NEPA — Impacts on Land Use and Ownership (Dec. 19, 2008) [Caliente Petition]. As discussed Section IV.A, *infra*, while timely, the Caliente Petition was not initially filed and served in the manner specified by NRC regulations.

¹⁷ Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation's Corrected Motion for Leave to File Its Amended Petition to Intervene as a Full Party (Mar. 5, 2009) [TSO Corrected Motion for Leave]; Amended Petition of the Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation to Intervene as a Full Party (Mar. 5, 2009) [TSO Amended Petition].

¹⁸ CAB Order (Accepting Joint Representation of Timbisha Shoshone Tribe) (Apr. 22, 2009) (unpublished).

¹⁹ Eureka County, Nevada's Request to Participate as Interested Governmental Participant (Dec. 22, 2008) [Eureka Request]; Lincoln County, Nevada's Corrected Request to Participate as Interested Governmental Participant (Dec. 22, 2008) [Lincoln Request].

January 16, 2009, the Applicant filed timely answers.²⁰ The Applicant filed a timely answer to TSO's proffered amended petition on March 27, 2009.²¹

On February 9, 2009, the NRC Staff filed a timely answer to all petitions.²² On March 20, 2009, the NRC Staff filed a timely answer to TSO's proffered amended petition.²³ On or before February 24, 2009, ten of the petitioners filed timely replies.²⁴ Two petitioners sought and were granted 15-day extensions of

²⁰ Answer of the U.S. Department of Energy to the State of Nevada's Petition to Intervene (Jan. 16, 2009) [DOE Nevada Answer]; Answer of the U.S. Department of Energy to the Nuclear Energy Institute's Petition to Intervene (Jan. 16, 2009) [DOE NEI Answer]; Answer of the U.S. Department of Energy to Nye County, Nevada Petition to Intervene and Contentions (Jan. 15, 2009) [DOE Nye Answer]; Answer of the U.S. Department of Energy to Nevada Counties of Churchill, Esmeralda, Lander and Mineral Petition to Intervene (Jan. 15, 2009) [DOE Nevada 4 Counties Answer]; Answer of the U.S. Department of Energy to State of California's Petition for Leave to Intervene in the Hearing (Jan. 16, 2009) [DOE California Answer]; Answer of the U.S. Department of Energy to the Native Community Action Council Petition to Intervene as a Full Party (Jan. 15, 2009) [DOE NCA Answer]; Answer of the U.S. Department of Energy to Timbisha Shoshone Tribe's Petition for Leave to Intervene in the Hearing (Jan. 15, 2009) [DOE TIM Answer]; Answer of the U.S. Department of Energy to Clark County, Nevada's Request for Hearing, Petition to Intervene and Filing of Contentions (Jan. 15, 2009) [DOE Clark Answer]; Answer of the U.S. Department of Energy to a Petition for Leave to Intervene by the County of Inyo, California on an Application by the U.S. Department of Energy for Authority to Construct a Geologic High-Level Waste Repository at a Geologic Repository Operations Area at Yucca Mountain, Nevada (Jan. 15, 2009) [DOE Inyo Answer]; Answer of the U.S. Department of Energy to White Pine County's Request for Hearing and Petition for Leave to Intervene Including Supporting Contentions on the Application by the U.S. Department of Energy for Authority to Construct a Geologic Repository at a Geologic Repository Operations Area at Yucca Mountain (Jan. 15, 2009) [DOE White Pine Answer]; Answer of the U.S. Department of Energy to the Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation Petition to Intervene as a Full Party (Jan. 15, 2009) [DOE TSO Answer]; Answer of the U.S. Department of Energy to Caliente Hot Springs Resort's Petition to Intervene (Jan. 15, 2009).

²¹ U.S. Department of Energy's Answer to Timbisha Shoshone Yucca Mountain Oversight Program Corrected Motion for Leave to File Amended Petition to Intervene and Amended Petition (Mar. 27, 2009) [DOE Answer to TSO Amended Petition].

²² NRC Staff Answer to Intervention Petitions (Feb. 9, 2009) [NRC Staff Answer].

²³ NRC Staff Answer to the Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation's Motion for Leave to File Amended Intervention Petition and Amended Intervention Petition (Mar. 20, 2009) [NRC Staff Answer to TSO Amended Petition].

²⁴ State of Nevada's Reply to DOE's Answer to Nevada's Petition to Intervene as a Full Party (Feb. 24, 2009) [Nevada DOE Reply]; State of Nevada's Reply to NRC Staff's Answer to Nevada's Petition to Intervene as a Full Party (Feb. 24, 2009); Reply of the Nuclear Energy Institute to the Answers to Its Petition to Intervene by the Department of Energy, the NRC Staff, and the State of Nevada (Feb. 24, 2009) [NEI Reply]; Nye County's Response to the Answers of NRC Staff and the Department of Energy (Feb. 24, 2009) [Nye Reply]; Nevada Counties of Churchill, Esmeralda, Lander and Mineral Replies to the U.S. Department of Energy Answer to the Nevada Counties of Churchill, Esmeralda, Lander and Mineral [Petition] to Intervene (Feb. 24, 2009) [Nevada 4 Counties DOE Reply]; Nevada Counties of Churchill, Esmeralda, Lander, and Mineral Replies to the NRC Staff Answer to

(Continued)

time to file replies and timely submitted their replies on March 11, 2009.²⁵ TSO filed timely replies to the DOE and NRC Staff answers to its proffered amended petition.²⁶

On January 16, 2009, Nevada filed a motion to amend its petition to intervene as a full party.²⁷ On February 9, 2009, Nevada filed an answer to NEI's petition to intervene.²⁸ NEI filed a motion to strike Nevada's answer on February 13, 2009.²⁹

the Nevada Counties of Churchill, Esmeralda, Lander, and Mineral Petition to Intervene (Feb. 24, 2009); State of California's Reply to Answer of the U.S. Department of Energy and NRC Staff Answer (Feb. 23, 2009) [California Reply]; Reply of Clark County, Nevada to the Answers of the U.S. Department of Energy and the Nuclear Regulatory Commission Staff (Feb. 24, 2009) [Clark Reply]; Responses of the County of Inyo to the Answers of the U.S. Department of Energy and NRC Staff (Feb. 24, 2009) [Inyo Reply]; Corrected Reply of White Pine County to the U.S. Department of Energy and Nuclear Regulatory Commission Staff Answers to White Pine County's Request for Hearing and Petition for Leave to Intervene Including Supporting Contentions on the Application by the U.S. Department of Energy for Authority to Construct a Geologic Repository at a Geologic Repository Operations Area at Yucca Mountain (Feb. 23, 2009); Reply of the Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation in Support of Its Petition to Intervene as a Full Party (Feb. 24, 2009) [TSO Reply]; Caliente Hot Springs Resort LLC's (CHS) Reply to U.S. Department of Energy's (DOE) Answer to CHS' Petition to Intervene (Feb. 23, 2009) [Caliente Reply].

²⁵ See Native Community Action Council's Motion for Extension of Time (Feb. 24, 2009); The Timbisha Shoshone Tribe's Amended Motion for Extension of Time and Finding of Good Cause for Late Filed Motion (Feb. 26, 2009); CAB Order (Granting Motion for Extension of Time) (Feb. 25, 2009) (unpublished); CAB Order (Granting Motion for Extension of Time) (Mar. 3, 2009) (unpublished); Petition to Intervene by Native Community Action Council (Mar. 11, 2009) (subsequently renamed Reply of the Native Community Action Council to the U.S. Department of Energy's Answer to Its Petition to Intervene as a Full Party) [NCA Reply]; Reply to NRC Staff and DOE Answers to Timbisha Shoshone Tribe's Motion to Intervene as a Full Party (Mar. 11, 2009) [TIM Reply].

²⁶ Reply of the Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation ("TOP") to the NRC Staff Answer to TOP's Motion for Leave to File an Amended Petition and Amended Petition (Mar. 27, 2009) [TSO Reply to NRC Staff Answer to TSO Amended Petition]; Reply of the Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation ("TOP") Motion for Leave to File an Amended Petition and Amended Petition (Apr. 3, 2009).

²⁷ State of Nevada's Motion to Amend Petition to Intervene as a Full Party (Jan. 16, 2009) [Nevada Motion to Amend].

²⁸ Answer of the State of Nevada to the Nuclear Energy Institute's Petition to Intervene (Feb. 9, 2009).

²⁹ The Nuclear Energy Institute's Motion to Strike Nevada's Answer to the Nuclear Energy Institute's Petition to Intervene (Feb. 13, 2009). It is not necessary to decide whether Nevada was entitled to file an answer to NEI's petition. As set forth *infra*, CAB-03 finds that NEI has standing and should be admitted as a party. Although CAB-03 does not admit two of NEI's nine contentions, that decision rests solely on grounds presented in the answers of DOE and the NRC Staff. NEI's motion to strike the Nevada NEI Answer is therefore moot.

Additional procedural as well as substantive issues have been raised, as more fully discussed *infra*.³⁰

On February 9, 2009, the Chief Administrative Judge designated CAB-01 to conduct the first prehearing conference pursuant to 10 C.F.R. § 2.1021,³¹ which, on March 12, 2009, CAB-01 conducted by telephone.³² On March 20, 2009, CAB-01 issued an order regarding that prehearing conference.³³ The three CABs heard oral argument on the admissibility of contentions in Las Vegas, Nevada, on March 31 through April 2, 2009.

II. KEY CRITERIA

Anyone who wishes to intervene as a party in this proceeding must: (1) establish that it has standing; (2) be able to demonstrate substantial and timely LSN compliance; and (3) proffer at least one admissible contention.³⁴

A. Standards Governing Standing

In this unique proceeding, the Commission has conferred standing as of right on certain parties. Pursuant to 10 C.F.R. § 2.309(d)(2)(iii), intervention is permitted by the State and local governmental body (county, municipality, or other subdivision) in which the geologic repository operations area (GROA) is located, and by any affected federally recognized Indian Tribe (AIT), as defined in 10 C.F.R. Part 63, if the contention admission requirements in 10 C.F.R. § 2.309(f) are satisfied with respect to at least one contention. Additionally, in the Notice of Hearing, the Commission clarified that any “affected unit of local government” (AULG), as defined in section 2 of the Nuclear Waste Policy Act of 1982, as amended (NWPA),³⁵ need not address standing, but rather shall be considered a party provided that it files at least one admissible contention in accordance with 10 C.F.R. § 2.309(f).³⁶

Otherwise, as more fully discussed below in connection with specific petitioners, a petition to intervene must provide information supporting the petitioner’s claim to standing, including: (1) the nature of the petitioner’s right under the gov-

³⁰ See, e.g., Section VIII, *infra*.

³¹ Chief Administrative Judge Order (Designating CAB01 to Conduct Conference) (Feb. 9, 2009) (unpublished).

³² Tr. at 1-62.

³³ CAB Order (Regarding Telephonic First Prehearing Conference) (Mar. 20, 2009) (unpublished).

³⁴ 10 C.F.R. §§ 2.309(a), 2.1012(b).

³⁵ 42 U.S.C. §§ 10101-10270.

³⁶ 73 Fed. Reg. at 63,031.

erning statutes to be made a party; (2) the nature of the petitioner's interest in the proceeding; and (3) the possible effect of any decision or order on the petitioner's interest.³⁷ In determining whether an individual or organization should be granted party status "as of right," the NRC applies judicial standing concepts that require a participant to establish: (1) 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[s]" (e.g., the Atomic Energy Act of 1954 (AEA),³⁸ the National Environmental Policy Act of 1969 (NEPA)³⁹); (2) the injury is fairly traceable to the challenged action; and (3) the injury is "likely to be redressed by a favorable decision."⁴⁰

An organization seeking to intervene in a representational capacity must: (1) demonstrate that the licensing action will affect at least one of its members; (2) identify that member by name and address; and (3) show that it is authorized by that member to request a hearing on his or her behalf.⁴¹ Additionally, the member must qualify for standing in his or her own right, and the interests that the organization seeks to protect must be germane to its own purpose.⁴² Neither the petitioner's contentions nor the requested relief, however, must require the participation of an individual member in the proceeding.⁴³

In determining whether a petitioner has established standing, the Commission has directed us to "construe the petition in favor of the petitioner."⁴⁴ In this unique proceeding, however, the Commission's Notice of Hearing, as well as 10 C.F.R. § 2.309(a), also directs us, in ruling on petitions to intervene, to "consider any failure of the petitioner to participate as a potential party in the pre-license application phase under 10 C.F.R. Part 2, Subpart J."⁴⁵ Additionally, under 10 C.F.R. § 2.1012(b)(1), a petitioner may not be granted party status if it cannot demonstrate substantial and timely compliance with the requirements in 10 C.F.R. § 2.1003 concerning the availability of documentary material on the LSN.

³⁷ 10 C.F.R. § 2.309(d)(1).

³⁸ 42 U.S.C. §§ 2011-2297.

³⁹ *Id.* §§ 4321-4347.

⁴⁰ *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995) (reciting standards for judicial standing).

⁴¹ *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000).

⁴² *Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409 (2007).

⁴³ *Id.*

⁴⁴ *Georgia Tech*, CLI-95-12, 42 NRC at 115.

⁴⁵ 73 Fed. Reg. at 63,030.

B. Compliance with LSN Requirements

The obligations and timetable for the production of documentary material on the LSN by DOE and the NRC Staff (both parties) and by the potential parties (now petitioners) are outlined in 10 C.F.R. § 2.1003. The definition of “documentary material” is set forth in 10 C.F.R. § 2.1001. The regulations also require that each party or potential party continue to supplement the production of its documentary material on the LSN.⁴⁶

In addition to each party’s or potential party’s responsibilities under section 2.1003, section 2.1009(a) provides, *inter alia*, that each party or potential party shall establish specified procedures for implementing its LSN production. Section 2.1009(b) requires a certification to the Pre-License Application Presiding Officer (PAPO) Board that the party or potential party has complied with the implementation procedures of section 2.1009(a)(2) and that “to the best of his or her knowledge, the documentary material specified in § 2.1003 has been identified and made electronically available.”⁴⁷

In its Second Case Management Order and its Revised Second Case Management Order, the PAPO Board implemented a monthly supplementation and certification requirement with respect to LSN production by the parties and potential parties.⁴⁸ The RSCMO and all subsequent PAPO case management orders now have been adopted by the CABs.⁴⁹

Pursuant to 10 C.F.R. § 2.1012(b)(1), a petitioner must be able to demonstrate substantial and timely compliance with the above requirements before being granted party status in the HLW proceeding. In reviewing a petitioner’s compliance, the Boards also must find that a petitioner has complied “with all applicable orders of the [PAPO Board].”⁵⁰ In the event a petitioner is found not to be in substantial and timely compliance with the LSN requirements, section 2.1012(b)(2) allows that petitioner to request party status upon a subsequent showing of compliance, although any grant of a request is “conditioned on accepting the status of the proceeding at the time of admission.”⁵¹ In addition, 10 C.F.R. § 2.309(a) provides that, in ruling on intervention petitions in the HLW proceeding, the Boards are to “consider any failure of the petitioner to participate

⁴⁶ 10 C.F.R. § 2.1003(e).

⁴⁷ *Id.* § 2.1009(b).

⁴⁸ PAPO Board Second Case Management Order (Pre-License Application Phase Document Discovery and Dispute Resolution) (July 8, 2005) at 21-22 (unpublished) [SCMO]; PAPO Board Revised Second Case Management Order (Pre-License Application Phase Document Discovery and Dispute Resolution) (July 6, 2007) at 21 (unpublished) [RSCMO].

⁴⁹ *See* CAB Case Management Order #1 (Jan. 29, 2009) at 2 (unpublished).

⁵⁰ 10 C.F.R. § 2.1012(c).

⁵¹ *Id.* § 2.1012(b)(2).

as a potential party in the pre-license application phase under subpart J of this part.”⁵²

DOE maintains that section 2.1012(b)(1) requires the petitioner, in its initial petition, affirmatively to demonstrate and to substantiate with factual support, apparently in affidavit form (although DOE does not definitively delineate the type of factual support necessary), that it has complied with the LSN requirements.⁵³ DOE’s position, however, is contrary to the plain language of the regulation.

Section 2.1012(b)(1) does not require an affirmative demonstration of compliance in an intervention petition. Instead, the regulation focuses on a petitioner’s ability to demonstrate compliance, rather than mandating when the demonstration must be made or outlining the manner in which the demonstration must occur. Section 2.1012(b)(1) states:

A person, including a potential party given access to the Licensing Support Network under this subpart, may not be granted party status under § 2.309, or status as an interested governmental participant under § 2.315, *if it cannot* demonstrate substantial and timely compliance with the requirements of § 2.1003 at the time it requests participation in the HLW licensing proceeding under § 2.309 or § 2.315.⁵⁴

Although DOE places emphasis on the phrase “at the time it requests participation in the HLW licensing proceeding” to support its view that petitioners must make an affirmative demonstration of compliance in their initial petitions, this phrase must be read in context. Because this provision includes the phrase “if it cannot,” it is clear that the “at the time it requests participation” language serves as a cutoff for the time period within which to judge the petitioner’s compliance, not the time the petitioner must demonstrate its compliance. Thus, contrary to DOE’s argument, the time to judge a petitioner’s compliance cannot come before the petitioner has filed its reply to any DOE and NRC Staff answers — the end point of the petitioner’s request for participation as a party. Any other reading of section 2.1012(b) not only would ignore the plain language of the regulation but would force the petitioner into the untenable position of responding to a challenge that is yet to be made (or one that might never be made).

In addition, section 2.1012(c), which describes the finding the Boards must make regarding a petitioner’s compliance with the LSN requirements, is similarly silent on, and in no way inconsistent with, our construction of section 2.1012(b)(1) regarding the timing and manner in which a petitioner must demonstrate its compliance. The section simply provides that “[t]he Presiding Officer shall not make a finding of substantial and timely compliance pursuant to paragraph (b) of

⁵² *Id.* § 2.309(a).

⁵³ *See, e.g.*, DOE Nevada Answer at 14-16.

⁵⁴ 10 C.F.R. § 2.1012(b)(1) (emphasis added).

this section for any person who is not in compliance with all applicable orders of the [PAPO] designated pursuant to § 2.1010.’’⁵⁵

Even assuming that the language of section 2.1012 were not clear and thus a review of the regulatory history were necessary, DOE has not cited any regulatory history, nor can the Boards find any, that supports its position. Indeed, by not objecting to the petitions on this ground, the NRC Staff seemingly agrees that the showing required under section 2.1012 is not as DOE would have it. The NRC Staff takes issue only with: (1) Caliente’s failure to participate in the PAPO proceeding and failure to make any documentary material available on the LSN, and (2) TIM’s failure to file with the PAPO Board a certification of compliance.⁵⁶

Moreover, as Nevada points out in its reply to DOE’s answer, DOE applies inconsistently its view that LSN compliance must be demonstrated in the intervention petition.⁵⁷ For example, DOE does not even challenge the LSN compliance of some petitioners that did not assert compliance in their petitions, yet it challenges the substance of Nevada’s assertions of compliance in its petition.⁵⁸ Further, not only does DOE fail to challenge the lack of an LSN compliance assertion in some petitions, it also makes the affirmative statement in some of its answers that it “has no reason to believe that the [petitioners] are not in substantial and timely compliance with their LSN obligations at this time.”⁵⁹ In light of DOE’s explicit position that a petitioner’s demonstration of LSN compliance must be made in the intervention petition, its affirmative statement that it has no reason to believe that a petitioner is not in substantial and timely compliance gives its more stringent demands a hollow ring.

Accordingly, the Boards are not persuaded by DOE’s interpretation of the LSN regulations. Nothing in the regulations requires a petitioner to demonstrate its compliance in the initial petition. Whether a petitioner has met the regulatory requirements for LSN compliance, however, is a proper subject for challenge

⁵⁵ *Id.* § 2.1012(c).

⁵⁶ *See* NRC Staff Answer at 34.

⁵⁷ *See* Nevada DOE Reply at 13-15.

⁵⁸ *Compare* DOE Nevada 4 Counties Answer at 2, *and* Nevada 4 Counties Petition (no mention of LSN compliance), *with* DOE Nevada Answer at 14-28, *and* Nevada Petition at 4 (asserting LSN compliance).

⁵⁹ DOE Nevada 4 Counties Answer at 2. This statement is also made with regard to the petitions of Nye County and NEI, whose petitions also appear to lack an affirmative assertion of compliance with the LSN requirements. *Compare* DOE Nye Answer at 2, *and* DOE NEI Answer at 2, *with* Nye Petition, *and* NEI Petition. For an example of DOE’s language with regard to a petition challenged by DOE that is silent on LSN compliance, *see* DOE Inyo Answer at 4-5 (“Inyo County’s Petition is entirely silent about its LSN obligations. Inyo County has thus failed altogether to address this threshold requirement for intervention, and the Board therefore cannot find that Inyo County is in substantial and timely compliance in light of the County’s silence”).

in an *answer* to a petition.⁶⁰ Once raised in the answer, a petitioner then has the opportunity to respond to challenges to its LSN compliance in the reply.⁶¹ If such a challenge is not raised in the answer, the petitioner does not need to do anything. Indeed, at oral argument, DOE appeared to abandon its argument and concede that a petitioner need not affirmatively demonstrate in its petition that it has complied with the requirements of the LSN.⁶²

The question remains as to what is required to “demonstrate substantial and timely compliance” with the LSN requirements when challenged. DOE argues, at least with respect to Nevada’s petition, that Nevada has not provided factual support, “by affidavit or otherwise,” to substantiate its demonstration of substantial and timely compliance.⁶³ DOE, however, provides no support, either by interpreting the language of the regulations or citing regulatory history, for this argument, nor can the Boards find any.⁶⁴ Although the word “demonstrate” appears several times in 10 C.F.R. Part 2, no definition is provided. In instances where the Commission expects that the demonstration be accompanied by factual support, the Commission has so expressly stated. For example, the word “demonstrate” appears in section 2.326(a)(3) for what is required of a movant in filing a motion to reopen. The factual support requirement, however, is specifically, and separately, addressed in section 2.326(b). Therefore, as it did in other sections of Part 2, if the Commission required factual support or affidavits for demonstrating substantial and timely compliance under section 2.1202(b)(1), it presumably would have expressly demanded it.

Hence, when its compliance is challenged, a petitioner need only state in its reply that it has complied with the LSN requirements.⁶⁵ The regulations and the PAPO Board’s implementation of the LSN requirements already set forth the context of this statement — *the initial and monthly supplemental certifications of compliance*.⁶⁶ Pursuant to 10 C.F.R. § 2.1009(b), the certification should be

⁶⁰ See 10 C.F.R. § 2.309(h)(1).

⁶¹ See *id.* § 2.309(h)(2).

⁶² See Tr. at 692-93.

⁶³ DOE Nevada Answer at 16.

⁶⁴ See *id.*

⁶⁵ See 10 C.F.R. § 2.304(d)(1) (providing that the signer makes the representations in 10 C.F.R. § 2.304(d) that:

[t]he signature of a person signing a pleading or other similar document submitted by a participant is a representation that the document has been subscribed in the capacity specified with full authority, that he or she has read it and knows the contents, that to the best of his or her knowledge, information, and belief the statements made in it are true, and that it is not interposed for delay).

⁶⁶ See *id.* §§ 2.1003(e), 2.1009(b); SCMO at 21-22; RSCMO at 21; see also Section V.A, *infra*.

a straightforward statement⁶⁷ that procedures have been “establish[ed] . . . to implement the requirements in § 2.1003,”⁶⁸ “and that to the best of [the certifying individual’s] knowledge, the documentary material specified in § 2.1003 has been identified and made electronically available.”⁶⁹ In its August 31, 2004 Memorandum and Order granting Nevada’s motion to strike DOE’s certification, the PAPO Board found that the initial certification requirement embodied a good faith standard — i.e., that the parties or potential parties have made every reasonable effort to produce all of their documentary material.⁷⁰

The PAPO Board carried forward that good faith standard in its RSMCO implementing a monthly supplementation and certification requirement with regard to LSN document production. In mandating monthly supplementation, the PAPO Board explicitly stated that “[e]ach potential party shall make a diligent good faith effort to include all after-created and after-discovered documents as promptly as possible in each monthly supplementation of documentary material . . . and shall file a certification to that effect with the PAPO Board when the monthly supplement is made.”⁷¹ Thus, the PAPO Board Order recognized that there necessarily would be a lag time between the creation or belated discovery of documentary material and any supplementation and certification because of the nature of the process each party or petitioner would need to undertake with respect to its particular document review system. Accordingly, the PAPO Board called for the process to be completed as promptly as possible.

Further, by including “after-discovered documents” in the supplementation provision, the PAPO Board necessarily recognized that no document location and production system is perfect, that mistakes would be made, and that those mistakes would need to be corrected. It imposed, therefore, a standard of “diligent

⁶⁷ *U.S. Department of Energy* (High-Level Waste Repository), LBP-04-20, 60 NRC 300, 339 (2004) (noting that the NRC Staff’s certification of compliance, in contrast with DOE’s then-deficient certification of compliance, contained “[n]o caveats. No cutoff date. Just a straightforward certification of compliance,” just a simple statement that “‘documentary material specified in 10 C.F.R. § 2.1003 has been identified and made electronically available’ ” (internal citation omitted)).

⁶⁸ 10 C.F.R. § 2.1009(a)(2).

⁶⁹ *Id.* § 2.1009(b); *see also U.S. Dep’t of Energy*, LBP-04-20, 60 NRC at 313:

[T]he regulations do not prescribe any particular wording for the certification. The regulations simply require each potential party to “[e]stablish procedures to implement the requirements in § 2.1003,” and to have a “responsible official . . . certify to the [PAPO Board] that the procedures . . . have been implemented, and that to the best of his or her knowledge, the documentary material specified in § 2.1003 has been identified and made electronically available.”

(internal citations omitted).

⁷⁰ *U.S. Dep’t of Energy*, LBP-04-20, 60 NRC at 314-15.

⁷¹ RSCMO at 21. The RSCMO defined “potential party” to include what are now all petitioners and parties. RSCMO at 5; *see also* PAPO Board Fifth Case Management Order (Supplementation, Correction, and Changing of Privilege Logs) (Nov. 1, 2007) at 3 (unpublished) [FCMO].

good faith effort’’ on the parties and petitioners, not a requirement of perfection.⁷² Moreover, the PAPO Board did not impose, just as the regulations do not include, a certification or supplementation requirement either where a petitioner has no documentary material to make available on the LSN at the time for initial certification or where it has nothing to supplement. (Of course, an affirmative statement that the petitioner has no documentary material to make available on the LSN with regard to either an initial or supplemental production, if such be the case, must be set forth in the petitioner’s reply if its compliance is challenged.) In summary, the initial and monthly supplemental certifications embody the complete set of obligations with regard to a petitioner’s LSN compliance — i.e., the establishment of procedures for the review and production of documentary material, the review and initial production of documentary material, and the review and monthly supplemental production of documentary material — all according to a good faith standard.

Finally, it should be noted that, in a series of case management orders, the PAPO Board put in place a process for resolving LSN document disputes between and among the petitioners and parties involving the various categories of privilege claims and documents claimed to contain sensitive unclassified information.⁷³ Other than motions to strike the initial certifications of various petitioners filed by DOE,⁷⁴ and the motions to strike the certifications of DOE filed by Nevada,⁷⁵ no contested LSN document discovery disputes were brought before the PAPO Board for resolution. Accordingly, with the exception of any newly raised matters in the answers of DOE and the NRC Staff that are addressed in this decision, there are no petitioners who are ‘‘not in compliance with all applicable orders of the [PAPO Board].’’⁷⁶

Similarly, because in developing case management orders for resolving LSN document disputes the PAPO Board generally mandated the participation of only DOE, the NRC Staff, and Nevada, and merely invited other petitioners to partic-

⁷² Compare DOE Nevada Answer at 19-25 (criticizing Nevada’s call memos), with Nevada DOE Reply at 36-39 (criticizing DOE’s call memos).

⁷³ See SCMO; RSCMO; PAPO Board Third Case Management Order (Aug. 30, 2007) (unpublished); PAPO Board Fourth Case Management Order (Concerning Electronic Filing, DDMS, Safeguards Information, and Other Items) (Oct. 5, 2007) at 5-8 (unpublished); FCMO.

⁷⁴ See The Department of Energy’s Motion to Strike January 16, 2008 Certification of Clark County (Jan. 28, 2008); The Department of Energy’s Motion to Strike the January 17, 2008 Licensing Support Network Certification by the State of Nevada (Jan. 28, 2008); see also DOE’s Motion to Strike 1/14/2008 Certification of the City of Las Vegas (Jan. 24, 2008) (The City of Las Vegas did not file an intervention petition in this proceeding).

⁷⁵ See Nevada’s Motion to Strike the Department of Energy’s LSN Certification and for Related Relief (July 12, 2004); Motion to Strike DOE’s October 19, 2007 LSN Recertification and to Suspend Certification Obligations of Others Until DOE Validly Recertifies (Oct. 29, 2007).

⁷⁶ 10 C.F.R. § 2.1012(c).

ipate,⁷⁷ the failure of any such petitioner to participate voluntarily with respect to any or all of the PAPO Board process was not inimical to the development of case management orders. Thus, the consideration of such participation in ruling upon any intervention petitions — called for by 10 C.F.R. § 2.309(a) — is, in the circumstances presented, not a factor.

C. Standards Governing Contention Admissibility

The Commission's regulations establish the requirements for an admissible contention. The Commission has said that it “should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing.”⁷⁸

An admissible contention must: (1) provide a specific statement of the legal or factual issue sought to be raised; (2) provide a brief explanation of the basis for the contention; (3) demonstrate that the issue raised is within the scope of the proceeding; (4) demonstrate that the issue raised 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 opinions that support the petitioner's position and on which the petitioner intends to rely at the hearing, including references to the specific sources and documents on which the petitioner intends to rely; and (6) provide sufficient information to show that a genuine dispute exists on a material issue of law or fact, including references to specific portions of the application that the petitioner disputes or, if the application is alleged to be deficient, the identification of such deficiencies and the supporting reasons for this allegation.⁷⁹

Additionally, an admissible contention cannot challenge an existing Commission regulation. Absent a waiver, “no rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding.”⁸⁰ This rule bars contentions

⁷⁷ See PAPO Board Order (Scheduling Case Management Conference) (Apr. 13, 2005) at 1 (unpublished); PAPO Board Order (Scheduling Case Management Conference) (Apr. 19, 2007) at 2 (unpublished).

⁷⁸ Final Rule: “Changes to Adjudicatory Process,” 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

⁷⁹ 10 C.F.R. § 2.309(f)(1)(i)-(vi).

⁸⁰ *Id.* § 2.335(a). A waiver “can be granted only in unusual and compelling circumstances.” *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 16, *aff'd*, CLI-88-10, 28 NRC 573, 597 (1988), *reconsideration denied*, CLI-89-3, 29 NRC 234 (1989) (internal quotation marks and citations omitted). “The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation . . . would not serve the purposes for which the rule or regulation was adopted.” 10 C.F.R. § 2.335(b). The Commission requires that any request for such waiver or exception be accompanied by an affidavit that identifies “with particularity the special circumstances alleged to justify the waiver or exception requested.” *Id.*

that: (1) advocate more or less stringent requirements than the NRC rules impose; (2) otherwise seek to litigate a generic determination that the Commission has established by rulemaking; or (3) raise a matter that is or is about to become the subject of rulemaking.⁸¹

Thus, an admissible contention must raise an issue that is both within the scope of the proceeding (generally defined by the hearing notice) and material to the findings the NRC must make to support the action involved.⁸² A contention that attacks applicable statutory requirements, challenges the basic structure of the NRC's regulatory process, or merely expresses generalized policy grievances is not appropriate for a board hearing.⁸³

Likewise, a petitioner must allege facts or provide expert opinion sufficient to establish a "minimal basis [that indicates] the potential validity of the contention."⁸⁴ The Commission's rules "bar contentions where petitioners have only 'what amounts to generalized suspicions, hoping to substantiate them later.'" ⁸⁵ Although a petitioner does not have to prove its contention at the admissibility stage,⁸⁶ "[m]ere 'notice pleading' is insufficient."⁸⁷ The necessary factual support, however, "need not be in affidavit or formal evidentiary form and need not be of the quality necessary to withstand a summary disposition motion."⁸⁸

Additionally, in ruling on the admissibility of individual contentions, each CAB has been mindful of the Advisory Pre-License Application Presiding Officer (APAPO) Board's Memorandum and Order dated June 20, 2008.⁸⁹ Among other things, the APAPO Board Order directed petitioners to "strive to frame narrow, single-issue contentions" that should be "sufficiently specific as to define the relevant issues for eventual rulings on the merits, and not require the parties or [CABs] to devote substantial resources to narrow or to clarify them."⁹⁰

⁸¹ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 179 (1998) (providing a summary of Commission precedent).

⁸² 10 C.F.R. § 2.309(f)(1)(iii), (iv).

⁸³ *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 & n.33 (1974).

⁸⁴ Final Rule: "Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process," 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989).

⁸⁵ *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) (quoting *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 338 (1999)).

⁸⁶ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004).

⁸⁷ *Fansteel, Inc.* (Muskogee, Oklahoma, Site), CLI-03-13, 58 NRC 195, 203 (2003).

⁸⁸ 54 Fed. Reg. at 33,171.

⁸⁹ *U.S. Department of Energy* (High-Level Waste Repository), LBP-08-10, 67 NRC 450 (2008).

⁹⁰ *Id.* at 454.

In light of this instruction, as well as the limited time in which the CABs have been directed by the Commission to complete their review of numerous contentions, each CAB has refrained from attempting to restructure any contention. Rather, each CAB has simply ruled whether each contention before it is either admissible or inadmissible, in accordance with the Commission's regulations.

As more fully explained *infra*, the granting of petitions and admission of contentions is only the first step in managing the HLW proceeding. Many other steps will be taken before any contention is set for hearing.

Among other things, briefing schedules will be established for admitted legal issue contentions, the resolution of which may ultimately determine the outcome of related factual contentions. The CABs contemplate that many contentions that are admitted in this initial phase might have to be narrowed or otherwise restructured at later stages in the proceeding — particularly where petitioners did not strictly adhere to the 'single-issue' rule but nonetheless proffered contentions that contain sufficient information to satisfy the Commission's regulations. Likewise, many admitted contentions may subsequently be consolidated or grouped for hearings on the merits.

III. OVERARCHING ISSUES

In addition to the foregoing requirements, and in light of the arguments that DOE and the NRC Staff repeatedly raise in response to nearly all proffered contentions, several issues concerning the admissibility of contentions merit further discussion.

A. Special Requirements for NEPA Contentions

The Commission has by regulation imposed special requirements on contentions in this proceeding that involve NEPA.⁹¹ DOE contends that no petitioner has satisfied these pleading standards for any contention.⁹² The NRC Staff

⁹¹ See 10 C.F.R. § 51.109.

⁹² See, e.g., DOE Nevada Answer at 4 (stating that [i]n the case of its NEPA contentions, Nevada fails to address any of the mandatory requirements of 10 C.F.R. § 51.109 and 10 C.F.R. § 2.326 [and] did not submit the affidavit of a qualified expert in support of any of its NEPA contentions that separately addresses each of the factors under § 2.326, including a demonstration that its contention, if proven to be true, would or would likely result in a materially different outcome in the proceeding.)

contends that, save for two environmental contentions, NYE-NEPA-001 and JTS-NEPA-009,⁹³ there are no contentions that satisfy these standards.⁹⁴

DOE and the NRC Staff read the Commission's regulations too narrowly. Fairly read — and especially when applied consistent with the decision in *Nuclear Energy Institute, Inc. v. Environmental Protection Agency*,⁹⁵ as the Commission has directed⁹⁶ — the regulations concerning NEPA contentions impose two relevant requirements beyond those that apply to all contentions. First, each such contention must be supported by “one or more affidavits which set forth factual and/or technical bases.”⁹⁷ Second, the affidavit or affidavits must set forth “significant and substantial” grounds for the claim that it is not practicable to adopt the EIS for the proposed repository prepared by DOE.⁹⁸ As reflected in the rulings of individual Boards, all admitted NEPA contentions satisfy these additional requirements.

1. Background

a. Nuclear Waste Policy Act

Section 114(f)(4) of the NWPA,⁹⁹ provides that “[a]ny [EIS] prepared in connection with a repository proposed to be constructed by [DOE] under this subtitle shall, *to the extent practicable*, be adopted by the [NRC] in connection with the issuance by the [NRC] of a construction authorization and license for such repository.”¹⁰⁰ The statute further provides that “[t]o the extent such statement is adopted by the [NRC], such adoption shall be deemed to also satisfy the responsibilities of the [NRC] under [NEPA] and no further consideration shall be required, except that nothing in this subsection shall affect any independent responsibilities of the [NRC] to protect public health under the [AEA].”¹⁰¹

⁹³ As explained Section X.B, *infra*, TSO-NEPA-001 in TSO's amended petition has been designated as JTS-NEPA-009.

⁹⁴ NRC Staff Answer at 1625; NRC Staff Answer to TSO Amended Petition at 11-13.

⁹⁵ 373 F.3d 1251, 1313-14 (D.C. Cir. 2004) [*NEI v. EPA*].

⁹⁶ 73 Fed. Reg. at 63,031. The Commission also directed that the NEPA contention admissibility requirements should be applied consistent with certain developments subsequent to the *NEI v. EPA* decision, and that the CABs “should treat as a cognizable ‘new consideration’ an attack on the Yucca Mountain environmental impact statements based on significant and substantial information that, if true, would render the statements inadequate.” *Id.*

⁹⁷ See 10 C.F.R. § 51.109(a)(2).

⁹⁸ See *id.* § 51.109(c)(2).

⁹⁹ NWPA § 114(f)(4), 42 U.S.C. § 10134(f)(4).

¹⁰⁰ *Id.* (emphasis added).

¹⁰¹ *Id.*

b. Commission Rulemaking

In 1988-89, the Commission conducted a rulemaking to consider the standards and procedures that should be used in licensing proceedings to determine whether the NRC's adoption of DOE's EIS is practicable.¹⁰² The Commission determined that the NWPA had altered the NRC's ordinary NEPA responsibilities so as to narrow the scope of the NRC's independent review of environmental issues that were already addressed by DOE in its EIS. As summarized by the Commission:

[The Commission] continues to emphasize its view that its role under NWPA is oriented toward health and safety issues and that, in general, nonradiological environmental issues are intended to be resolved in advance of NRC licensing decisions through the actions of [DOE], subject to Congressional and judicial review in accordance with NWPA and other applicable law. The Commission anticipates that many environmental questions would have been, or at least could have been, adjudicated in connection with an [EIS] prepared by DOE, and such questions should not be reopened in proceedings before NRC.¹⁰³

Under the Commission's final rule, the NRC Staff was required to present its position on whether it is practicable to adopt DOE's EIS without supplementation.¹⁰⁴ Under section 51.109(a)(2), parties then were to be afforded the opportunity to submit contentions asserting that it is not practicable to adopt the DOE EIS:

Any other party to the proceeding who contends that it is not practicable to adopt the DOE [EIS], as it may have been supplemented, shall file a contention to that effect within thirty (30) days after the publication of the notice of hearing in the Federal Register. Such contention must be accompanied by one or more affidavits which set forth factual and/or technical bases for the claim that, under the principles set forth in paragraphs (c) and (d) of this section, it is not practicable to adopt the DOE [EIS], as it may have been supplemented. The presiding officer shall resolve disputes concerning adoption of the DOE [EIS] by using, to the extent possible, the criteria and procedures that are followed in ruling on motions to reopen under § 2.326 of this chapter.¹⁰⁵

¹⁰² See Proposed Rule: "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 53 Fed. Reg. 16,131 (May 5, 1988); Final Rule: "NEPA Review Procedures for Geologic Repositories for High-Level Waste," 54 Fed. Reg. 27,864 (July 3, 1989).

¹⁰³ 54 Fed. Reg. at 27,865.

¹⁰⁴ See *id.* at 27,868; see also 10 C.F.R. § 51.109(a)(1).

¹⁰⁵ 10 C.F.R. § 51.109(a)(2). In 2004, section 51.109(a)(2) was revised to reference a new section number for motions to reopen, as part of the Commission's overall revision of the rules of practice for adjudicatory hearings. See 69 Fed. Reg. at 2276. The standards for reopening were not changed.

The relevant *criteria* governing the practicability of adoption are set forth in section 51.109(c):

The presiding officer will find that it is practicable to adopt any [EIS] prepared by [DOE] in connection with a geologic repository proposed to be constructed under Title I of the [NWPA], unless:

- (1)(i) The action proposed to be taken by the [NRC] differs from the action proposed in the license application submitted by [DOE]; and
 - (ii) The difference may significantly affect the quality of the human environment;
- or
- (2) Significant and substantial new information or new considerations render such [EIS] inadequate.¹⁰⁶

The *criteria* concerning motions to reopen, which are incorporated in section 51.109(a)(2) by reference, are set forth in section 2.326(a):

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. However, an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented;
- (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.¹⁰⁷

The *procedures* to be followed in motions to reopen, which are likewise incorporated in section 51.109(a)(2) by reference, are set forth in the remainder of section 2.326 and include, among other things, requirements that such a 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) of this section have been satisfied”; that such affidavits “must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised”; and that “[e]vidence contained in affidavits must meet the admissibility standards of this subpart.”¹⁰⁸

Section 51.109 was premised on the assumption that administrative litigation at the NRC of NEPA issues concerning the repository should be limited, because parties should already have had the opportunity to litigate many of these issues in another forum.¹⁰⁹ The Commission expected that an interested person would have

¹⁰⁶ 10 C.F.R. § 51.109(c).

¹⁰⁷ *Id.* § 2.326(a).

¹⁰⁸ *Id.* § 2.326(b).

¹⁰⁹ *See* 54 Fed. Reg. at 27,866-87.

had an opportunity to challenge DOE's EIS in federal court after it was used to support DOE's recommendation of a site for the repository.¹¹⁰

With that expectation in mind, the regulations were designed to ensure that the environmental issues in any NRC proceeding on the proposed repository would appropriately focus on issues that were new — that could not have been raised at the earlier opportunity to challenge the EIS. Accordingly, the regulations adopted in section 51.109 focus not on the entire EIS — as would be the normal NRC practice — but rather on the NRC's decision to adopt the EIS. The regulations limit challenges to the NRC's adoption decision to those issues that had changed from the original Application, or that were issues raising “significant and substantial new information”¹¹¹ that arose after the (expected) earlier opportunity to challenge the EIS.

This makes sense if parties had already had the opportunity to challenge any of the other issues regarding the EIS. Given that assumption, it also explains why the regulations direct the Boards to use the higher standards governing a motion to reopen when ruling upon the issues raised regarding adoption of the EIS — because litigation of the EIS in the NRC's administrative proceeding was seen as reopening the record on an already litigated EIS.

c. *Subsequent Events*

Actual events regarding judicial review of environmental issues at Yucca Mountain, however, transpired differently than had been anticipated.

Under the NWPA, when site characterization activities are completed, DOE may recommend site approval to the President and any such recommendation must be accompanied by an EIS.¹¹² DOE submitted such an EIS and recommended the Yucca Mountain site to the President in February 2002. In accordance with section 114(a)(2) of the NWPA, the President then recommended the Yucca Mountain site to Congress.¹¹³ Under sections 115 and 116 of the NWPA, the affected state (Nevada) submitted a notice of disapproval in April 2002, which was overcome by a Joint Resolution approved by Congress and signed by the President on July 23, 2002.¹¹⁴

As a result of these developments, DOE was *required* to submit an application for a construction authorization to the NRC under section 114(b) of the NWPA, irrespective of DOE's NEPA analysis.¹¹⁵ Instead of the EIS being used to support

¹¹⁰ *Id.*

¹¹¹ 10 C.F.R. § 51.109(c)(2).

¹¹² *See* NWPA § 114(a)(1), 42 U.S.C. § 10134(a)(1), (f)(1).

¹¹³ *See* NWPA § 114(a)(2), 42 U.S.C. § 10134(a)(2).

¹¹⁴ Pub. L. No. 107-200, 116 Stat. 735 (2002) (codified at 42 U.S.C. § 10135 note).

¹¹⁵ *See* NWPA § 114(b), 42 U.S.C. § 10134(b).

the recommendation of Yucca Mountain as a site for a repository, there was a Joint Resolution of Congress approving the Yucca Mountain site designation.

d. NEI Decision

In *NEI v. EPA*, the Court of Appeals for the District of Columbia (D.C. Circuit) held that these developments rendered any challenge to the EIS's support for the Yucca Mountain site moot, and to the extent the NRC might rely upon the EIS, rendered challenges unripe because the NRC had not reached a decision regarding adopting or relying upon the EIS in a way that could have yet harmed the parties.¹¹⁶

The *NEI v. EPA* decision resulted from a complex series of events. After Congress approved the Yucca Mountain site by a Joint Resolution signed by the President, Nevada sought judicial review of: (1) DOE's decision to recommend the Yucca Mountain site to the President; (2) the President's decision to recommend the site to Congress; and (3) DOE's EIS, which had been prepared to support both recommendations.¹¹⁷ In response, DOE argued that the Joint Resolution had rendered moot Nevada's challenges to DOE's and the President's recommendations, with the result that Nevada's claims that the EIS was inadequate could not be considered as part of the challenges to those recommendations. Further, DOE argued that, insofar as the EIS might be used to support future DOE and NRC decisions, the EIS was not ripe for review because there was no final agency action affecting Nevada at that time.¹¹⁸

In the litigation resulting in the *NEI v. EPA* decision, Nevada's challenges to DOE's and the President's recommendations and to the EIS were combined with other issues raised by Nevada and other lawsuits concerning the proposed Yucca Mountain repository, including challenges to the Environmental Protection Agency's (EPA) final standards for the proposed repository.¹¹⁹ In *NEI v. EPA*, the court agreed with DOE that Congress's enactment of the Joint Resolution had rendered moot issues concerning DOE's and the President's recommendation of the Yucca Mountain site.¹²⁰ Thus, the court held that "[i]nsofar as Nevada's instant challenge to the [EIS] is intended to reverse the decision to select the Yucca site, the challenge is moot."¹²¹

¹¹⁶ *NEI v. EPA*, 373 F.3d at 1302.

¹¹⁷ *See id.* at 1261-62.

¹¹⁸ *Id.* at 1312-13.

¹¹⁹ *See* 373 F.3d 1251; Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV, 66 Fed. Reg. 32,074 (June 13, 2001).

¹²⁰ *NEI v. EPA*, 373 F.3d at 1309.

¹²¹ *Id.* at 1312.

The court noted, however, the anticipated use of the EIS in future decision making related to Yucca Mountain, including its potential adoption by the NRC in its licensing proceeding, and considered whether the court should review the EIS because it might be used to support future decisions.¹²² The court determined that the EIS was not ripe for review under the two-part test used to determine ripeness: (1) “the fitness of the issue for judicial decision”; and (2) “the hardship to the parties of withholding court consideration.”¹²³

Under the first prong of the test, the court noted that it was unclear to what extent the NRC would adopt the EIS and whether the EIS would require supplementation prior to any adoption. The court concluded that “[o]ur review of the [EIS] therefore would benefit from postponing consideration until the [EIS] has been used to support a specific, concrete, and final decision.”¹²⁴

Under the second prong of the test, the court concluded that “withholding consideration of Nevada’s substantive claims at this time imposes no hardship on Nevada . . . [because] Nevada may raise its substantive claims against the [EIS] if and when NRC or DOE makes . . . a final decision.”¹²⁵ In reaching this conclusion as to hardship, the court stated that “we rely on the assurances of counsel for both the NRC and DOE at oral argument that Nevada will be permitted to raise its substantive challenges to the [EIS] in any NRC proceeding to decide whether to adopt the [EIS] and in any DOE proceeding to select a transportation alternative.”¹²⁶ As the court explained:

The NWPA’s mandate that the [EIS] be adopted by NRC “to the extent practicable” is intended to avoid duplication of the environmental review process. *See* H.R. Rep. No. 97-491, pt. 1, at 48, 53-54 (1982). But it cannot reasonably be interpreted to permit NRC to premise a construction-authorization or licensing decision upon an EIS that does not meet the substantive requirements of the NEPA or the Council on Environmental Quality’s NEPA regulations. *See id.* at 48 (“The Committee intends that *throughout* the repository development program, the Secretary *and other agencies* meet the general requirements and the spirit of NEPA”).¹²⁷

Following oral argument, the NRC purported to clarify its position in a letter submitted to the court.¹²⁸ The NRC’s Office of General Counsel attempted to explain that the relevant regulations “affect[] issues that can be raised and liti-

¹²² *See id.* at 1312-13.

¹²³ *Id.* (citing *AT&T Corp. v. Federal Communications Commission*, 349 F.3d 692, 699 (D.C. Cir. 2003)).

¹²⁴ *NEI v. EPA*, 373 F.3d at 1313.

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ *Id.* at 1314.

¹²⁸ *Id.*

gated at NRC *administrative* hearings, not issues that can be raised on *judicial* review.”¹²⁹ The court said that “[t]he suggested distinction makes no sense.”¹³⁰ The court declined to accept any clarification of “Government counsel’s unequivocal representation to the court during oral argument” and firmly reiterated the court’s view that, in any event, “any substantive defects in the [EIS] clearly would be relevant to the ‘practicability’ of adopting the [EIS].”¹³¹

e. Nevada’s 2005 Petition

Thereafter, in April 2005, Nevada petitioned the Commission for rulemaking, contending that section 51.109 was at odds with the court’s ruling in *NEI v. EPA*.¹³² Among other things, Nevada argued that the Commission’s regulations should be revised to clarify that the court intended for boards to consider fully NEPA contentions concerning Yucca Mountain, and that the Commission should delete section 51.109(a)(2), with the result that the admission of NEPA contentions would be guided by the same principles in 10 C.F.R. § 2.309(f).¹³³ On January 25, 2008, the Commission denied Nevada’s petition.¹³⁴

In denying the petition, the Commission rejected Nevada’s argument that section 51.109(c) is inconsistent with the *NEI v. EPA* court’s interpretation and therefore required correction.¹³⁵ Rather, the Commission determined that the court itself had concluded the regulation as drafted adequately protected Nevada’s interest in raising substantive claims against the EIS in administrative proceedings:

Government counsel’s unequivocal representation to the court during oral argument that Nevada will not be foreclosed from raising substantive claims against the [EIS] in administrative proceedings comports with the terms of the regulation and reflects a reasonable and compelling interpretation. Therefore, on the record at hand, there is no reason to assume that the regulation will bar consideration of Nevada’s substantive claims in the relevant NRC administrative proceedings.¹³⁶

Indeed, the Commission interpreted the *NEI v. EPA* decision as an expression of the court’s satisfaction that the existing language of the regulation would allow consideration of Nevada’s substantive claims:

¹²⁹ *Id.* (alteration in original).

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² See State of Nevada; Receipt of Petition for Rulemaking, 70 Fed. Reg. 47,148 (Aug. 12, 2005).

¹³³ *Id.* at 47,150.

¹³⁴ See State of Nevada; Denial of Petition for Rulemaking, 73 Fed. Reg. 5762 (Jan. 31, 2008).

¹³⁵ *Id.* at 5765.

¹³⁶ *Id.* at 5764-65 (quoting *NEI v. EPA*, 373 F.3d at 1314).

This conclusion follows the court's explicit consideration of the language of the § 51.109(c) criteria. The court focused on the second criterion; *i.e.*, that it might not be practicable for NRC to adopt the [EIS] if "significant and substantial new information or new considerations render such environmental impact statement inadequate." The court noted that "Government counsel assured the court that NRC will not construe the 'new information or new considerations' requirement to preclude Nevada from raising substantive claims against the [EIS] in administrative proceedings." Further, the court observed that "Nevada's claims have not been adjudicated on the merits here and presumably will not have been passed upon by any court prior to the relevant NRC proceedings. The claims thus would certainly raise 'new considerations' with regard to any decision to adopt the [EIS]." There is no need for the Commission to expend the resources needed for a rulemaking to "correct" a rule which the court gave no indication of needing correction. *NRC will treat Nevada's substantive claims against the [EIS] as "new considerations" within the framework of § 51.109(c).*¹³⁷

The Commission thus concluded that, at a minimum, Nevada's substantive claims against the EIS must be treated as "new considerations," regardless of whether the regulations might be read to the contrary. As to the unique procedures specified in the regulations, however, the Commission declined to address them, relying upon the general principle that an agency is not required to "establish one uniform agency process for all NEPA reviews."¹³⁸

The Commission therefore did not address with specificity how the unique procedures spelled out in 10 C.F.R. § 2.326 — which are directed to reopening closed records — should be reconciled with its determination that *all* substantive claims against the EIS will, in effect, automatically qualify as "new considerations."¹³⁹ Subsequently, by letter from NRC's Assistant General Counsel to Nevada's counsel, the NRC Staff confirmed the treatment of NEPA claims as "new considerations" and certain related matters, but likewise did not reconcile section 2.326.¹⁴⁰

f. Notice of Hearing

In accordance with the Commission's ruling on Nevada's petition, the Notice of Hearing in this proceeding provided as follows with respect to environmental contentions:

¹³⁷ 73 Fed. Reg. at 5765 (quoting *NEI v. EPA*, 373 F.3d at 1314) (internal citations and footnote omitted) (emphasis added).

¹³⁸ 73 Fed. Reg. at 5765.

¹³⁹ *Id.*

¹⁴⁰ Letter from Bradley W. Jones, Assistant General Counsel for the NRC, to Martin G. Malsch, counsel for Nevada (Mar. 20, 2008) (ADAMS Accession No. ML080810175).

In addition to meeting NRC's regular contention admissibility requirements in 10 C.F.R. § 2.309(f), environmental contentions addressing any DOE [EIS] or supplement must also conform to the requirements and address the applicable factors outlined in 10 C.F.R. § 51.109 governing NRC's adoption of DOE's [EISs]. The requirements of section 51.109 should be applied consistent with [*NEI v. EPA*], a court decision discussing section 51.109, and consistent with the Commission's denial of the State of Nevada's petition to amend section 51.109 and the Office of the General Counsel's subsequent letter clarifying the Commission's denial. Under 10 C.F.R. § 51.109(c), the presiding officer should treat as a cognizable "new consideration" an attack on the Yucca Mountain [EISs] based on significant and substantial information that, if true, would render the statements inadequate. Under 10 C.F.R. § 51.109(a)(2), a presiding officer considering environmental contentions should apply NRC "reopening" procedures and standards in 10 C.F.R. § 2.326 "to the extent possible."¹⁴¹

2. Analysis

Taken together, the Commission's special requirements for NEPA contentions must be applied in the following manner:

First, 10 C.F.R. § 51.109(a)(2) unambiguously requires that each factual NEPA contention "must be accompanied by one or more affidavits." (As explained in Section III.G, *infra*, however, a purely legal issue contention cannot logically require affidavit support, as by definition such a contention alleges no facts that require support.)

Second, such affidavit or affidavits must set forth "factual and/or technical bases" for the claim that it is not practicable to adopt the DOE EIS.¹⁴² In the present circumstances, the only relevant test for such a claim under the regulations is whether the supporting affidavit or affidavits present "[s]ignificant and substantial new information or new considerations" sufficient to "render such environmental impact statement inadequate."¹⁴³ Because the Commission's Notice of Hearing instructs the Boards to treat otherwise admissible NEPA contentions as presenting cognizable "new considerations," however, the test is reduced to merely determining whether such affidavits present "significant and substantial information that, if true, would render the [DOE environmental] statements inadequate."¹⁴⁴

We need not, at this admissibility stage, further define the standard that will ultimately apply in adjudicating NEPA contentions on the merits. At this point,

¹⁴¹ 73 Fed. Reg. at 63,031 (internal citations omitted).

¹⁴² 10 C.F.R. § 51.109(a)(2).

¹⁴³ *Id.* § 51.109(c)(2).

¹⁴⁴ 73 Fed. Reg. at 63,031.

a petitioner does not have to prove its contentions,¹⁴⁵ and we do not adjudicate disputed facts.¹⁴⁶ It is sufficient, for example, for a petition to allege, with support in a reasoned affidavit from a competent expert, that “incomplete and inadequate [EIS] analyses of the cumulative impacts of land surface discharge of groundwater contaminated with radionuclides and other repository derived contaminants are significant deficiencies” sufficient to preclude adoption of DOE’s EIS.¹⁴⁷

Third, in considering such environmental contentions, Boards are directed to use, “to the extent possible,” the criteria and procedures that are followed in ruling on motions to reopen a closed record pursuant to 10 C.F.R. § 2.326.¹⁴⁸ On close examination, however, it is apparent that, in the circumstances of this proceeding, the criteria and procedures in 10 C.F.R. § 2.326 are either irrelevant or redundant.

Section 2.326(a) sets forth three criteria. The first — whether the motion is timely — is irrelevant here, as the Commission specified in the Notice of Hearing when petitions were due.¹⁴⁹ The second — whether the motion addresses a “significant safety or environmental issue” — merely duplicates the requirement in 10 C.F.R. § 51.109(c)(2) and the Notice of Hearing that NEPA contentions present “significant and substantial” information.¹⁵⁰ The third — whether the proffered information would likely cause a “materially different result” — is superseded by the Commission’s direction to treat as cognizable those contentions that set forth information “that, if true, would render the [DOE environmental] statements inadequate.”¹⁵¹

The balance of section 2.326 sets forth procedural requirements in three subsections. Section 2.326(b) requires “affidavits that set forth the factual and/or technical bases” for satisfying the three criteria in section 2.326(a) discussed above. As noted, petitions in this proceeding are timely if filed with the Office of the Secretary on or before the date set in the Notice of Hearing, and there is no need to establish timeliness by affidavit. Section 2.326(b) also requires affidavit support to demonstrate “a significant safety or environmental issue”

¹⁴⁵ *Private Fuel Storage*, CLI-04-22, 60 NRC at 139.

¹⁴⁶ *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 244 (2006) (citing *Mississippi Power and Light Co.* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973)).

¹⁴⁷ See Nevada Petition at 1128.

¹⁴⁸ 10 C.F.R. § 51.109(a)(2).

¹⁴⁹ 73 Fed. Reg. at 63,030, 63,032.

¹⁵⁰ *Id.* at 63,031.

¹⁵¹ *Id.* The relevant “materially different result” here could not be a different outcome of the application process itself, as NEPA does not command one outcome over another. See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) (“NEPA itself does not mandate particular results, but simply prescribes the necessary process”).

and the likelihood of a “materially different result.”¹⁵² That obligation, however, is necessarily satisfied by competent affidavits that satisfy the requirements of 10 C.F.R. § 51.109 and the Notice of Hearing for affidavit support sufficient to present “significant and substantial information that, if true, would render the [DOE environmental] statements inadequate.”¹⁵³ (Contrary to DOE’s claims during oral argument,¹⁵⁴ the Boards are not aware of multiple standards of reliability for affidavits; all affidavits are expected to be “relevant, material, and reliable.”¹⁵⁵) Section 2.326(c), which concerns confidential informants, and section 2.326(d), which concerns nontimely contentions, are inapplicable.

In summary, reading 10 C.F.R. § 51.109 together with the Notice of Hearing, and using the criteria and procedures set forth in 10 C.F.R. § 2.326 “to the extent possible,” we find that, in addition to the usual contention admissibility requirements set forth in section 2.309(f)(1), factual NEPA contentions must be supported by one or more competent affidavits and such affidavits must present significant and substantial information that, if true, would render the DOE environmental statements inadequate. This represents a significant additional burden, as generally contentions may, but need not necessarily, be supported by affidavits at all.¹⁵⁶ Likewise, the “significant and substantial” test prevents our admitting any contentions that merely “flyspeck” DOE’s environmental analysis, as DOE and the NRC Staff fear.¹⁵⁷

But to impose greater burdens — as DOE and the NRC Staff apparently would prefer — cannot be squared with either our directions from the Commission or with the agencies’ representations to the D.C. Circuit in the *NEI v. EPA* case, in which the court relied on “the assurances of counsel for both the NRC and DOE at oral argument that Nevada will be permitted to raise substantive challenges to the [EIS] in any NRC proceeding to decide whether to adopt the [EIS].”¹⁵⁸ This point takes on added significance because the court emphatically rejected NRC counsel’s attempt, in effect, to withdraw its representations concerning the ability of petitioners such as Nevada to raise substantive challenges to the adequacy of the EIS in future administrative proceedings.

¹⁵² 10 C.F.R. § 2.326(a).

¹⁵³ 73 Fed. Reg. at 63,031.

¹⁵⁴ Tr. at 157.

¹⁵⁵ 10 C.F.R. §§ 2.337(a), 2.711(e).

¹⁵⁶ *See id.* § 2.309(f)(1).

¹⁵⁷ *See, e.g.*, DOE Nevada Answer at 57-60; NRC Staff Answer at 1065-66, 1153-54, 1438, 1487, 1510.

¹⁵⁸ 373 F.3d at 1313.

B. Transportation-Related NEPA Contentions

As DOE correctly points out, the NRC does not have regulatory authority over DOE's transportation of nuclear waste to the proposed repository.¹⁵⁹ DOE also correctly points out that, while the NWPA requires it to use NRC-certified casks for shipment of nuclear waste to the proposed repository, such certification requirements are governed by different regulations, and are not directly at issue in this proceeding.¹⁶⁰ DOE argues that "contentions challenging the accuracy or adequacy of DOE's NEPA analysis of the impacts of transporting [nuclear waste] are not proper subjects for contentions in this proceeding."¹⁶¹ That conclusion is not correct.

As explained above, by regulation and in the Notice of Hearing, the Commission established special pleading requirements for all NEPA contentions.¹⁶² The Commission did so because, under the NWPA, the NRC's NEPA responsibilities are limited to determining whether it is practicable to adopt DOE's environmental documents.¹⁶³ But the NRC's NEPA responsibilities have not been abrogated entirely. In this proceeding, the NRC is obligated under NEPA to analyze and to disclose all environmental effects of the proposed repository, not just the effects of those portions of the repository over which the NRC has direct regulatory control. Contentions that address such environmental effects, including transportation-related effects, may not be dismissed at this early stage of the proceeding if they satisfy the Commission's special pleading requirements for HLW NEPA contentions.

In other words, in addition to satisfying the usual contention admissibility requirements in 10 C.F.R. § 2.309(f)(1), such factual contentions must be supported by one or more competent affidavits presenting "significant and substantial information that, if true, would render the [DOE] environmental statements inadequate."¹⁶⁴ As reflected in the rulings of individual Boards, the admitted contentions concerning transportation-related matters satisfy these NEPA requirements.

NEPA imposes upon every federal agency the duty to examine "to the fullest extent possible" the environmental consequences of any proposed federal action that might "significantly affect[] the quality of the human environment."¹⁶⁵ NEPA requires federal agencies to examine, to analyze, and to disclose not only

¹⁵⁹ See, e.g., DOE Nevada Answer at 64-65.

¹⁶⁰ See *id.* at 65.

¹⁶¹ *Id.* at 70.

¹⁶² See Section III.A, *supra*.

¹⁶³ NWPA § 114(f)(4), 42 U.S.C. § 10134(f)(4); see also 73 Fed. Reg. at 63,031.

¹⁶⁴ See Section III.A, *supra*; 73 Fed. Reg. at 63,031.

¹⁶⁵ NEPA § 102, 42 U.S.C. § 4332.

direct effects, but also indirect effects that “are later in time or farther removed in distance, but are still reasonably foreseeable.”¹⁶⁶ If federal agencies were free to ignore related effects that they do not directly regulate, NEPA would be meaningless. For example, no agency but EPA would be obligated to consider air pollution associated with increased traffic, as only EPA directly regulates vehicle emissions under the Clean Air Act.¹⁶⁷

Transportation of nuclear waste is a foreseeable consequence of constructing a nuclear waste repository. As California persuasively argues, “[w]ithout transportation of the waste to it, Yucca Mountain would be just a very large, fancy, and expensive hole in a mountain.”¹⁶⁸ The Commission, for example, has stated that there can be “no serious dispute” that the NRC’s environmental analysis in connection with licensing nuclear facilities should extend to “related offsite construction projects — such as connecting roads and railroad spurs.”¹⁶⁹ Likewise, there can be no serious dispute that the NRC’s NEPA responsibilities do not end at the boundaries of the proposed repository, but rather extend to the transportation of nuclear waste to the repository. The two are closely interdependent. Without the repository, waste would not be transported to Yucca Mountain. Without transportation of waste to it, construction of the repository would be irrational. Under NEPA, both must be considered.

DOE argues that the Supreme Court’s decision in *Department of Transportation v. Public Citizen*¹⁷⁰ renders transportation impacts outside the scope of the NRC’s NEPA responsibilities.¹⁷¹ In *Public Citizen*, however, the essential decision being challenged was made by the President (who is not subject to NEPA), and implemented by an agency that, by statute, lacked discretion to undo that decision or to attach environmental conditions. The *Public Citizen* decision was premised on its unusual facts.¹⁷² *Public Citizen* did not create an exemption from NEPA for the transportation-related effects of federal actions; it held only that an agency may be excused from complying with NEPA where it has no discretion to prevent, or to refuse to take, the action involved. The narrowness of the *Public*

¹⁶⁶ 40 C.F.R. § 1508.8(b), adopted by the NRC as 10 C.F.R. § 51.14(b).

¹⁶⁷ Compare *Sierra Club v. U.S. Department of Transportation*, 962 F. Supp. 1037, 1045 (N.D. Ill. 1997) (EIS incomplete without analysis of effect of toll road on production of ozone in the region).

¹⁶⁸ California Reply at 25.

¹⁶⁹ *Kansas Gas and Electric Co.* (Wolf Creek Nuclear Generating Station, Unit 1), CLI-77-1, 5 NRC 1, 8 (1977); see also *Detroit Edison Co.* (Greenwood Energy Center, Units 2 and 3), ALAB-247, 8 AEC 936 (1974) (Licensing Board correctly assessed environmental impacts of transmission line routes extending 90 miles beyond the nuclear facility).

¹⁷⁰ 541 U.S. 752 (2004).

¹⁷¹ See, e.g., DOE Nevada Answer at 1871, 1882, 1892, 1900, 1907, 1914, 1921, 1929, 1947.

¹⁷² See 541 U.S. at 770.

Citizen holding has been recognized in later decisions of the Supreme Court¹⁷³ and other courts.¹⁷⁴ Thus, DOE's argument is not persuasive.

Nor do we find pertinent *California Trout v. Schaefer*,¹⁷⁵ a case that DOE cited for the first time during oral argument.¹⁷⁶ That decision addressed "the concurrent yet independent jurisdiction of two federal agencies."¹⁷⁷ That is not the situation here, where DOE is the *Applicant* before the NRC. Without NRC authorization, no repository will be constructed and no transportation of waste to the repository will occur. In the NWPA, Congress expressly addressed and established the scope of the NRC's NEPA responsibilities relative to DOE in the unique circumstances of this proceeding. The Commission has implemented those defined responsibilities through regulations. While DOE would have responsibility for constructing and operating the proposed facility, the NRC is not, as DOE seemed to contend during oral argument, a "lesser agency" with "no jurisdiction" and "no responsibilities under NEPA to consider the environmental impact statements being prepared by another federal agency."¹⁷⁸

DOE also contends that the NRC lacks jurisdiction to consider transportation-related environmental effects because DOE's transportation-related environmental documents have been, or at least could have been, challenged on direct review in a federal court of appeals.¹⁷⁹ This argument lacks merit.

First, under the NWPA, the NRC must undertake its own assessment of DOE's environmental documents to determine whether it is "practicable" to adopt them.¹⁸⁰ That assessment, while more limited than it would otherwise be under NEPA, nonetheless requires an independent assessment by the NRC that is not necessarily dictated by the results of direct appeals from DOE decisions. On the contrary, in promulgating special pleading requirements for environmental contentions, the Commission explained that it assumed that "many environmental questions would have been, or at least could have been, adjudicated in connection with an environment impact statement prepared by DOE."¹⁸¹ The Commission

¹⁷³ *National Association of Home Builders v. Defenders of Wildlife*, 127 S. Ct. 2518, 2535 (2007).

¹⁷⁴ See, e.g., *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1213 (9th Cir. 2008); *Defenders of Wildlife v. U.S. Environmental Protection Agency*, 420 F.3d 946, 963 (9th Cir. 2005), *overruled on other grounds sub nom. National Association of Home Builders v. Defenders of Wildlife*, 127 S. Ct. 2518 (2007).

¹⁷⁵ 58 F.3d 469 (9th Cir. 1995).

¹⁷⁶ See Tr. at 176, 190; Letter to the CABs from Donald J. Silverman, counsel for DOE (Apr. 14, 2009) (ADAMS Accession No. ML091040464).

¹⁷⁷ *Cal. Trout v. Shaefer*, 58 F.3d at 474.

¹⁷⁸ Tr. at 175.

¹⁷⁹ See, e.g., DOE Nevada Answer at 66-69.

¹⁸⁰ NWPA § 114(f)(4), 42 U.S.C. § 10134(f)(4).

¹⁸¹ NEPA Review Procedures for Geologic Repositories for High-Level Waste, 54 Fed. Reg. 27,864, 27,865 (July 3, 1989).

anticipated direct appeals from DOE's environmental documents, and saw them as grounds for restricting — but not eliminating — contentions directed at the NRC's independent decision whether to adopt them.

Second, while some issues involving some of the same DOE transportation-related environmental documents may have previously been litigated in *Nevada v. Department of Energy*,¹⁸² the DOE Application at issue here is based on a 2008 Supplemental EIS (SEIS) that obviously was not before the D.C. Circuit in 2006. Nor were many of the present petitioners. At hearings on the merits, DOE might wish to argue *res judicata* or collateral estoppel as to specific facts and specific petitioners, based on past or perhaps future court litigation.¹⁸³ That earlier DOE environmental documents were considered by the D.C. Circuit to some extent in 2006, however, is not grounds for wholesale rejection of contentions that address whether it is practicable for the NRC to adopt more recent versions of such documents.

We repeat: The NWPA has limited, but not eliminated, the scope of the NRC's NEPA responsibilities. The Commission has addressed those limitations by imposing special pleading requirements for all NEPA contentions. If those requirements are satisfied, Boards cannot dismiss otherwise admissible contentions at this stage of the proceeding.

C. Sufficiency of Affidavits

1. Form of Affidavits

DOE challenges Nevada's practice (and that of some other petitioners) of placing everything that it is offering in support of each of its contentions in the body of the contention itself and, then, in affidavits accompanying its contentions, having its experts adopt specified paragraphs as their own opinions. According to DOE, the requirements of section 2.309(f)(1) are not satisfied by expert affidavits that simply incorporate by reference what is in the contention itself.¹⁸⁴ Thus, DOE would have it that virtually all of Nevada's contentions must fail for this reason alone. The Boards reject DOE's argument.

To put DOE's position in context, it is useful to examine its impact on one of the many Nevada contentions that would, under DOE's thesis, fail to satisfy the requirements of section 2.309(f)(1)(v) and possibly (vi) as well. For illustrative purposes, we consider NEV-SAFETY-009.

¹⁸² 457 F.3d 78 (D.C. Cir. 2006).

¹⁸³ See Letter to the CABs from Donald J. Silverman, counsel for DOE (Apr. 14, 2009) (ADAMS Accession No. ML091040464) (advising of petitions for review filed by California and Nevada in the United States Court of Appeals for the Ninth Circuit on April 6 and 7, 2009).

¹⁸⁴ DOE Nevada Answer at 47-48.

That contention constitutes a challenge to the effect that the infiltration model used for the Yucca Mountain project applies current meteorological data for predicting future climates in the Yucca Mountain region over the course of the next 10,000 years.¹⁸⁵ According to the contention, the use of the existing model is flawed because it fails to acknowledge that atmospheric carbon dioxide concentrations are increasing at an annual rate of 1 to 2 parts per million by volume and, as a result, the climate status adopted by DOE for the next 10,000 years cannot be justified.¹⁸⁶ It follows, Nevada maintains, that the model challenged in NEV-SAFETY-009 does not comply with the regulatory requirements found in 10 C.F.R. § 63.305(c).¹⁸⁷

With respect to the obligation to provide a concise statement of the alleged facts or expert opinions undergirding the contention,¹⁸⁸ Nevada critiques (in paragraph 5) what it asserts is the U.S. Geological Survey (USGS)-produced study (Forester *et al.*) on which the challenged statements in the Safety Analysis Report (SAR) are primarily based.¹⁸⁹ Nevada references different studies (*e.g.*, Solomon S. *et al.*) that it says show the central hypothesis in the Forester study to be “flawed and untenable.”¹⁹⁰ The Forester study hypothesis — that “future insolation-correlated climate patterns may resemble those of past periods with similar insolation” — assertedly conflicts with the consideration that “both insolation and greenhouse gas concentrations are fundamental forcing factors of climate change.”¹⁹¹ In addition, Nevada cites an exchange of memoranda within USGS that is taken to establish that the Forester study did not receive the external review that it was required to receive under the agency’s report policy.¹⁹²

By way of expert support for the foregoing representations, as well as those advanced by Nevada with regard to the requirement that it establish the existence of a genuine dispute on a material issue of fact or law, Nevada cites, *inter alia*, the affidavit submitted by Dr. Michael C. Thorne. Dr. Thorne is a British environmental scientist who, according to his attached curriculum vitae (CV), has extensive experience in the areas of climatology germane to the issue presented by NEV-SAFETY-009. In relevant part, the affidavit states:

Within the Petition are numerous contentions, each comprised of several paragraphs.

¹⁸⁵ Nevada Petition at 92.

¹⁸⁶ *Id.*

¹⁸⁷ *Id.* at 93.

¹⁸⁸ 10 C.F.R. § 2.309(f)(1)(v).

¹⁸⁹ Nevada Petition at 94-95.

¹⁹⁰ *Id.* at 94.

¹⁹¹ *Id.* (internal citations omitted).

¹⁹² *Id.* at 94-95.

I hereby adopt as my own opinions the statements contained within Paragraph 5 of those specific contentions identified in Attachment B to this Affidavit.

Also within the Petition are numerous contentions relating to the TSPA. I hereby adopt as my own opinions the statements contained within Paragraph 6 of those specific contentions identified in Attachment C to this Affidavit.¹⁹³

By paragraphs 5 and 6, the affiant had reference to the discussion in the Nevada contentions designated to meet, respectively, the expert opinion and genuine dispute requirements contained in section 2.309(f)(1)(v) and (vi). In Appendix B, he listed those contentions for which he was adopting as his own opinion the content of Nevada's paragraph 5 discussion. In Appendix C, he listed the contentions as to which he adopted as his own opinion the content of paragraph 6. NEV-SAFETY-009 is listed in both Appendices, and thus Dr. Thorne has adopted "as [his] own opinions" the content of both paragraph 5 and paragraph 6 of that contention.¹⁹⁴

In responding to paragraph 5 in NEV-SAFETY-009, DOE presented this universal response to the incorporation in the Thorne affidavit (and those of other Nevada experts) of the content of the contention:

Nevada's petition does attach several affidavits (Jonathan Overpeck and Michael C. Thorne), which purportedly provide expert opinions to support this contention. However, rather than providing information to support the assertions in paragraph 5 of this contention, the affidavits simply "adopt" the otherwise unsupported assertions made in paragraph 5 of the contention. That approach falls short of the requirement to provide conclusions supported by reasoned bases or explanation.¹⁹⁵

The Boards are aware of no support for DOE's position in either the Statement of Considerations underlying section 2.309(f)(1)¹⁹⁶ or decisions of the Commission interpreting and applying that section, and DOE provides none. Thus, the relevant question is whether the purposes served by the admissibility requirements imposed by that section are not satisfied by the affidavits that DOE attacks.

Adopting DOE's position would exalt form over substance. The objective of the section 2.309(f)(1)(v) and (vi) requirements is to ensure that Boards admit only those conditions that have been demonstrated to have sufficient substance to warrant further consideration on the merits. One method of demonstrating that a

¹⁹³ Nevada Petition, Exh. 3, Affidavit of Dr. Michael C. Thorne ¶¶ 2-3 (Dec. 19, 2008) [Thorne Aff.].

¹⁹⁴ Thorne Aff. ¶¶ 2-3.

¹⁹⁵ DOE Nevada Answer at 158.

¹⁹⁶ See 69 Fed. Reg. 2182.

particular contention is worthy of admission is, of course, the furnishing of the reasoned opinion of a qualified expert.

In the case of Dr. Thorne's support of NEV-SAFETY-009, DOE's objection to the form of the affidavit would have evaporated if all of the discussion in paragraph 5 of the contention regarding the Forester and Solomon studies had been found in the affidavit itself. Why then should it be of any significance that, instead, Nevada elected to include that discussion in the body of the contention and then had Dr. Thorne subscribe to it in his affidavit? At bottom, what is important is that the claim made in NEV-SAFETY-009 has the support of the opinion of a clearly qualified expert. Although there might be other reasons for not admitting the contention, the form of Dr. Thorne's affidavit should not be one of them.

DOE's suggestion — that what has been provided is no more than the opinion of Nevada counsel who drafted the contentions — is both surprising and meritless. DOE's counsel are experienced litigators, who surely have had occasion to prepare many affidavits for the signature of the affiant and submission to an adjudicatory tribunal. They must be aware that the process of affidavit preparation almost inevitably involves the collaborative effort of counsel and affiant, and that what is submitted to the tribunal will represent the views of the affiant even though the drafting of the document might have been accomplished by the counsel. That being so, it is not important whether or not Nevada counsel drafted paragraph 5 in NEV-SAFETY-009 and the other contentions receiving Dr. Thorne's endorsement. Absent any indication to the contrary, there is every reason to believe Nevada's express representation that the expert was involved in its formulation, if not its actual composition.¹⁹⁷ DOE has provided no reason to doubt the authenticity of Nevada's experts' statements.

DOE further contended, at oral argument, that Nevada's affidavits should be rejected because they violate the June 20, 2008 APAPO Board Order¹⁹⁸ directive that affidavits should "contain numbered paragraphs that can be cited with specificity."¹⁹⁹ DOE ignores the APAPO Board's purpose. The APAPO Board anticipated that numerous contentions might be supported by a given expert, and hoped to be able to identify the specific portions of supporting affidavits relevant to specific contentions. Instead, Nevada's experts adopted specific paragraphs of specific contentions as their own — thereby accomplishing the same objective by other means. In any event, directly contrary to DOE's position, the APAPO Board Order expressly stated that its requirements were "not intended to make the process more difficult."²⁰⁰ On the contrary, the APAPO Board stated that,

¹⁹⁷ See Nevada DOE Reply at 61; *see also* 10 C.F.R. § 2.304(d).

¹⁹⁸ *U.S. Dep't of Energy*, LBP-08-10, 67 NRC 450.

¹⁹⁹ Tr. at 433-34.

²⁰⁰ *U.S. Dep't of Energy*, LBP-08-10, 67 NRC at 452.

absent bad faith, “because the requirements are being imposed for the first time in a unique and complex proceeding, failure to comply . . . shall not be grounds . . . to object to the admissibility of a proffered contention.”²⁰¹

2. *Supporting References*

Both DOE and the NRC Staff insist that an expert’s opinion should be accompanied by a specific reference to supporting sources and documents.²⁰² They contend that any contention lacking such documentation must not be admitted.

DOE and the NRC Staff claim that the requirement that expert opinion must invariably be accompanied by a reference to supporting sources and documents is based on section 2.309(f)(1)(v). That provision requires “references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position.” It says nothing about references upon which an expert might rely in offering expert opinion. And it surely cannot reasonably be interpreted to require a petitioner to produce, at this stage, its exhibit list for a hearing. On the contrary, “[a] petitioner does not have to provide a complete or final list of its experts or evidence or prove the merits of its contention at the admissibility stage.”²⁰³

Fairly read, section 2.309(f)(1)(v) offers the petitioner an opportunity to bolster the required “concise statement of . . . alleged facts or expert opinions” with “specific sources and documents on which the requestor/petitioner intends to rely.” If a petitioner so chooses, then it must give references to such sources and documents. As with a summary disposition motion, however, the support for a contention should be viewed in a light that is favorable to the petitioner.²⁰⁴ The requirement for such support “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.”²⁰⁵

Insofar as the Boards can determine, section 2.309(f)(1)(v) has never been interpreted as imposing a requirement that an expert’s opinion must include specific references to supporting sources and documents. The Boards have not been directed to anything in the Statement of Considerations pertaining to the underlying purpose of section 2.309(f)(1) that lends credence to this position.

²⁰¹ *Id.*

²⁰² *See, e.g.*, DOE Nevada Answer at 765-66; NRC Staff Answer at 503-04.

²⁰³ *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 356 (2006).

²⁰⁴ *Id.*

²⁰⁵ 54 Fed. Reg. at 33,170 (emphasis added) (internal quotations omitted) (quoting *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 1), ALAB-868, 25 NRC 912, 930 (1987)).

Nor have the Boards been made aware of any Commission decision in which a contention was found unacceptable because the expert did not support his or her conclusions with identification of the sources or documents upon which that opinion rested.

The decisions cited by DOE stand simply for the unremarkable proposition that expert opinion must not be limited to bald conclusory statements such as that the application under consideration is “deficient,” “inadequate,” or “wrong.”²⁰⁶ Not a word in any of those decisions might be taken as imposing a strict obligation upon an expert to buttress a tendered opinion with references to specific sources or documents.

The absence of any such imposed obligation in either the applicable Statement of Considerations or the decisions interpreting and applying section 2.309(f)(1)(v) is not surprising. The purpose of that subsection, when read in conjunction with the subsection (vi) requirement of the existence of a genuine dispute on an issue of material fact or law, is to ensure that there is possibly enough substance to the contention to warrant further exploration. As explained in the Statement of Considerations, the Commission’s objective was “to ensure that the adjudicatory process is used to address real, concrete, specific issues that are appropriate for litigation.”²⁰⁷ It is to that end that an expert opinion is provided. Although that opinion must provide a sufficient foundation for the conclusions stated therein, it is fatuous to suggest that, in all instances, the expert must refer to specific sources or documents.

It is not invariably the case that an expert opinion will have at its foundation some independent source or document. In some instances the opinion tendered in support of a particular contention might appropriately be based upon conclusions formulated by the expert following his or her own study over the course of perhaps many years. Depending upon the nature of the study, there might or might not be the accumulation of data in furtherance of the furnished conclusions. In formulating its contention admissibility criteria, the Commission was presumably aware of these considerations.

Finally, a crucial flaw in DOE’s position was exposed at oral argument. According to DOE’s counsel, DOE was entitled to be supplied with the sources and documents undergirding an expert’s expressed opinion because such access was necessary to enable DOE to try to persuade the Boards, presumably by furnishing counter sources and documents, that the expert’s opinion was in

²⁰⁶ See *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006); *Fansteel*, CLI-03-13, 58 NRC at 203; *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), LBP-02-4, 55 NRC 49, 66 (2002); *Private Fuel Storage*, LBP-98-7, 47 NRC at 181.

²⁰⁷ 69 Fed. Reg. at 2202.

error.²⁰⁸ But such exploration of the substantiality of expert opinion is manifestly not appropriate at the contention admissibility stage. Instead, going as it does to the merits, it must await the filing of motions for summary disposition or the convening of an adjudicatory hearing.

Accordingly, in passing upon whether a particular contention meets the section 2.309(f)(1)(v)-(vi) admissibility test, the Boards have confined their inquiry to whether, with or without references to particular sources or documents, the supporting expert opinion has offered enough to justify a conclusion that the contention is worthy of further consideration on its merits. If the contention satisfies that test, it then moves on for that examination, either on motion for summary disposition or following an evidentiary hearing.

D. Allegedly Heightened Standard for Admitting HLW Contentions

Despite the established contention admissibility standards of 10 C.F.R. § 2.309(f)(1), DOE argues in its answers to all the intervention petitions, except that of Caliente, that petitioners have a heightened obligation to proffer focused and adequately supported contentions in this proceeding because of the existence of the LSN.²⁰⁹ Citing selected portions of an internal agency document and the voluminous regulatory history of 10 C.F.R. Part 2, Subpart J, DOE asserts that the purpose of the LSN was to afford potential participants the opportunity to frame focused contentions.²¹⁰ DOE then sets out its view of the completeness, extensiveness, and usefulness of its LSN document collection and appears to argue that its enormous document productions, coupled with the purpose of the LSN to provide petitioners with the opportunity to frame focused contentions, raises the bar for contention admissibility in this proceeding.²¹¹ All of the petitioners who addressed the issue, as well as the NRC Staff, disagree with DOE.²¹²

Inssofar as DOE continues to assert this argument,²¹³ its position is without merit. The standards embodied in section 2.309(f)(1) have been in existence, for

²⁰⁸ Tr. at 443-44, 446.

²⁰⁹ See, e.g., DOE Nevada Answer at 29-34; DOE NEI Answer at 29-32; DOE Nye Answer at 4-6; DOE Nevada 4 Counties Answer at 4-6; DOE California Answer at 29-32; DOE NCA Answer at 26-29; DOE TIM Answer at 34-36; DOE Clark Answer at 11-14; DOE Inyo Answer at 11-14; DOE White Pine Answer at 4-7; DOE TSO Answer at 27-30.

²¹⁰ See, e.g., DOE Nevada Answer at 29-30.

²¹¹ See, e.g., *id.* at 29-34; Tr. at 651-54. For a countervailing view of the completeness, extensiveness, and usefulness of the DOE LSN collection, see, e.g., Nevada DOE Reply at 30-33, 36-39.

²¹² See Nevada 4 Counties DOE Reply at 5-6; Tr. at 671; Nye Reply at 12 n.4; Tr. at 678; Clark Reply at 19-20; Tr. at 673-74; Nevada DOE Reply at 29-39; Tr. at 661-66. See also Tr. at 670 (NRC Staff), 672-73 (NCA), 674-75 (TIM), 675-76 (TSO).

²¹³ See Tr. at 656-57; *but see* Tr. at 679.

the most part, since 1989.²¹⁴ If, in subsequently promulgating Subpart J containing the LSN provisions, the Commission had wanted to raise the standard for the admissibility of contentions because of the LSN, it could have done so explicitly, as it did in 10 C.F.R. § 51.109(a)(2) with respect to the admissibility of contentions raising NEPA issues. The Commission did just the opposite. In promulgating Subpart J, the Commission expressly provided that section 2.309 was to remain unchanged.²¹⁵

E. TSPA Model-Based Contentions

NRC regulations concerning the proposed repository are set forth in 10 C.F.R. Part 63. Among other things, the regulations impose limits on radiological exposures.²¹⁶ The regulations further provide that compliance with such limits, over necessarily long time periods, “requires a performance assessment.”²¹⁷ Under the Commission’s regulations, not any performance assessment will do, but only one that meets a number of very specific requirements.²¹⁸

DOE endeavors to satisfy the Commission’s performance assessment requirements through a complex model designated the Total System Performance Assessment (TSPA).²¹⁹ Nevada and other petitioners proffer more than 100 contentions alleging various defects in the TSPA. The overwhelming majority of such contentions allege that these defects result in one or more violations of the Commission’s regulations and are supported by affidavits from competent experts.

DOE opposes the admission of all contentions concerning the TSPA. The NRC Staff opposes the vast majority of those contentions.²²⁰ That such contentions allege violations of the Commission’s regulations for performance assessments, DOE argues, does not make them “material to this proceeding.”²²¹ Rather, DOE asserts, such contentions must also demonstrate how each alleged defect in the TSPA “either independently or cumulatively in combination with other contentions could result in an increase in the mean dose above regulatory limits.”²²² Nevada in particular, DOE contends, “has the ability to quantify the impacts of

²¹⁴ See 54 Fed. Reg. 33,168.

²¹⁵ See 10 C.F.R. § 2.1000.

²¹⁶ *Id.* § 63.311.

²¹⁷ *Id.* § 63.102(j); see also 10 C.F.R. § 63.113.

²¹⁸ See, e.g., 10 C.F.R. § 63.114.

²¹⁹ Yucca Mountain Repository License Application Safety Analysis Report at 2.4-1 (2008).

²²⁰ See, e.g., NRC Staff Answer at 1575-76 (The NRC Staff does not object to a contention that focuses on net infiltration modeling (NEV-SAFETY-40)).

²²¹ DOE Nevada Answer at 4.

²²² *Id.*

its contentions on dose and at a minimum to provide a qualitative analysis of how the contention would affect the model, including the likely range of impacts on dose.’’²²³

DOE and the NRC Staff would have the Boards create barriers to the admissibility of contentions that do not exist under the Commission’s regulations. As reflected in the rulings of individual Boards, all admitted contentions that allege defects in the TSPA satisfy the requirements of 10 C.F.R § 2.309(f)(1). Arguments to the contrary are unpersuasive.

First, Part 63 requires more than a performance assessment that demonstrates compliance with dose standards. To be used for this purpose, a performance assessment must itself comply with specific and separately articulated requirements.²²⁴ In promulgating Part 63, the Commission made clear that these involve a “range of considerations,” including “requirements for addressing uncertainty, providing technical basis for models, and additional requirements, *beyond expected performance.*”²²⁵

For example, Nevada’s TSPA contentions all allege separate and specific violations of Part 63, e.g., that the TSPA: (1) omits “the full range of defensible and reasonable parameter distributions”;²²⁶ (2) is not based on “credible models and parameters”;²²⁷ (3) omits “features, events and processes” (FEP) that should have been included;²²⁸ (4) fails to “account for uncertainties and variabilities in parameter values”;²²⁹ (5) fails to “provide for the technical basis for parameter ranges, probability distributions, or bounding values”;²³⁰ and (6) fails to consider “alternative conceptual models of features and processes that are consistent with available data and current scientific understanding.”²³¹ Proffered contentions that adequately allege violations of such regulatory requirements raise material issues in and of themselves, because, as the Commission clarified in promulgating Part 63, “any determination that the postclosure performance objectives will be met will be based on a comprehensive set of regulatory requirements,” including requirements “beyond expected performance for increasing confidence”²³² in achieving this goal. These separate requirements in the Commission’s regulations

²²³ *Id.*

²²⁴ *See, e.g.*, 10 C.F.R. §§ 63.101, 63.102, 63.114, 63.305.

²²⁵ *Disposal of High-Level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain, NV*, 66 Fed. Reg. 55,732, 55,747 (Nov. 2, 2001) (emphasis added).

²²⁶ *See, e.g.*, Nevada Petition at 231 (citing 10 C.F.R. § 63.304).

²²⁷ *See, e.g., id.* at 374 (citing 10 C.F.R. § 63.102(h)).

²²⁸ *See, e.g., id.* at 542 (citing 10 C.F.R. § 63.114(e)).

²²⁹ *See, e.g., id.* at 625 (citing 10 C.F.R. § 63.114(b)).

²³⁰ *See, e.g., id.* at 625.

²³¹ *See, e.g., id.* at 824 (citing 10 C.F.R. § 63.114(c)).

²³² 66 Fed. Reg. at 55,747.

cannot be ignored, as if the only requirement in Part 63 were to demonstrate compliance with dose standards by any method that the Applicant chooses.

Moreover, 10 C.F.R. § 63.114(c) specifies that any performance assessment used to demonstrate compliance with 10 C.F.R. § 63.113 must “[c]onsider alternative conceptual models.” Section 63.102(j) defines a “performance assessment” as a “systematic analysis” that “quantitatively estimate[s] radiological exposures.” Read together, the Commission’s regulations require that alternative conceptual models must be “considered” in the “systematic analysis” in the TSPA that “quantitatively estimate[s] radiological exposures.”

DOE cites NRC case law, purportedly for the proposition that petitioners must more fully explain the implications of the deficiencies they allege in the TSPA.²³³ DOE’s citations are inapposite. No cited case stands for the proposition that well-supported allegations of violations of specific, relevant NRC regulations of the kind at issue here fail to raise a material issue.²³⁴ DOE dismisses the requirements of Part 63 as “process regulations.”²³⁵ Even assuming that alleged violations of Commission regulations might not raise a material issue in certain circumstances, these proceedings present no such case. When the Commission developed Part 63, it explained in response to comments that the repository’s postclosure safety would not depend solely upon meeting a dose standard. Instead, postclosure safety would depend upon a comprehensive set of requirements, including the ones on which Nevada relies.²³⁶

Second, some TSPA-related contentions *do* assert, explicitly or by implication, that alleged defects in the TSPA will increase the likelihood that dose standards might not be achieved. Clark, for example, contends that alleged errors “could mean that the risk is greater than reported in the TSPA” and that the “TSPA could underestimate the consequences and likelihood of post-closure radioactive releases.”²³⁷ Separate and apart from alleged violations of other specific regulatory

²³³ See, e.g., DOE Nevada Answer at 53-57.

²³⁴ See *McGuire*, CLI-03-17, 58 NRC 419 (intervenors did not perform the bare minimum preparations; there was no attempt to perform any independent analysis); *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43 (2008) (contention was not well supported by the expert); *Pilgrim*, LBP-06-23, 64 NRC 257 (well-supported contention was admitted); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), LBP-03-12, 58 NRC 75 (2003) (petitioner offered only bald assertions and provided little support for them); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), LBP-03-17, 58 NRC 221 (2003) (intervenors did not show that a model was defective or used incorrectly but simply that a different result would be achieved using their own model); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-16, 31 NRC 509 (1990) (petitioner made minimal effort to support its contentions).

²³⁵ Tr. at 216.

²³⁶ See generally 66 Fed. Reg. at 55,747.

²³⁷ Clark Petition at 6, 22.

requirements that apply to the TSPA, such qualitative predictions — when adequately supported by reasoned affidavits from competent experts — are by themselves sufficient to admit contentions. During a discussion of TSPA-related contentions before the APAPO Board in May 2008, counsel for DOE appeared to agree:

JUDGE BOLLWERK: So what you're saying is if they have an affidavit from an expert that says, "this is material", that would suffice?

MR. SILVERMAN: With a sufficient — a reasonable explanation that . . . would be appropriate at this stage of the proceeding, yes.²³⁸

Third, to require petitioners to rerun the TSPA themselves, in order to demonstrate the individual or collective effects of the defects they allege, would improperly require the Boards to adjudicate the merits of contentions before admitting them.²³⁹

At hearings on the merits, DOE will have several choices. For example, DOE may try to disprove the alleged defects. Or DOE may endeavor to show that, individually and collectively, the alleged defects do not affect the TSPA even if assumed to be true. Or DOE may try to disprove some of the alleged defects and endeavor to show that, individually and collectively, any remaining alleged defects will not affect the TSPA.

But DOE cannot, at the contention admissibility stage, demand that petitioners rerun DOE's TSPA in order to demonstrate the impact of alleged defects. Again, in proceedings before the APAPO Board, counsel for DOE appeared to agree:

MR. SILVERMAN: I'm not suggesting they have to rerun the TSPA in its entirety, but they do have a burden as a petitioner to identify a genuine issue of material fact.²⁴⁰

DOE counsel also represented to the Board:

MR. SILVERMAN: If I understand [Nevada counsel] correctly, he is saying that the State would endeavor to identify as specifically as reasonable possible errors in models or sub models as individual contentions. We agree with that.

He is saying that they would not necessarily need to identify the implications of

²³⁸ APAPO Board Conference Transcript (May 14, 2008) at 96 [APAPO Tr.].

²³⁹ See *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 9-10 (2002).

²⁴⁰ APAPO Tr. at 95.

— the cumulative implications, perhaps, of all of those various errors. I believe he’s saying that. And if that’s true I think that’s right.²⁴¹

Finally, petitioners have at the very least raised a substantial fact question as to whether it would have been reasonably possible for them to rerun the TSPA before filing their contentions. Compared to notice pleading in the federal courts, the NRC’s contention requirements have correctly been called “strict by design.”²⁴² They are not intended, however, to require the impossible.

Nevada’s experts have stated in affidavits that, to reflect the consequences of individual contentions, it would be necessary to perform a substantial number of additional modeling cases that are beyond the practical ability of anyone other than DOE to perform. Nevada’s experts have also stated, in affidavits, that to reflect the cumulative effects of relevant contentions would require analysis of many thousands of possible changes. As Nevada explains in relevant contentions that are supported by affidavits:

Because the TSPA is a complex non-linear model, and changes in the approach adopted are likely to result in changes in the results obtained that vary both as a function of time postclosure and from realization to realization within a modeling case, a determination whether acceptance of this contention would necessarily lead to calculated doses in excess of EPA’s dose standards would require DOE to perform a substantial number of additional modeling cases that are not included in the [Application] and that are beyond the practical ability of anyone else to perform. Moreover, there are more than 100 Nevada TSPA contentions with characteristics like this one. These relate to a total of 19 different broad aspects of the TSPA. Therefore, there are many thousands of possible changes that would need to be made to DOE’s TSPA approach to include the effects of accepting this one contention along with all possible combinations of Nevada’s other contentions relating to different aspects of the TSPA, even if all contentions relating to each broad aspect of the TSPA were considered together in defining the variant cases. This vastly increases the burden and complexity of showing the dose effects of acceptance of Nevada’s contentions.²⁴³

DOE suggests otherwise. DOE notes that Nevada’s own expert purports to be “qualified and experienced in performing risk assessments for nuclear waste disposal facilities,”²⁴⁴ pointing out that Nevada has acquired relevant software, that DOE held a “tutorial” for Nevada on the TSPA, and that the TSPA can be

²⁴¹ APAPO Tr. at 89-90.

²⁴² *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001).

²⁴³ *See, e.g.*, Nevada Petition at 95-96.

²⁴⁴ DOE Nevada Answer at 50 (citing Thorne Aff. ¶ 1).

scrutinized and run on Nevada’s computers.²⁴⁵ DOE asserts that Nevada should not only be able to run the TSPA model, but even without doing so, Nevada should be able to provide “at least a qualitative assessment, and in many cases a quantitative assessment, of the effect of its alleged errors and deficiencies on the repository’s ability to meet regulatory standards.”²⁴⁶

These suggestions by DOE merely illustrate that there exists a factual dispute that cannot be resolved against petitioners at the contention admissibility stage²⁴⁷ — especially where petitioners’ version of the facts is supported by sworn affidavits and DOE’s version is not.

F. “Reasonable Assurance” and “Reasonable Expectation”

Under 10 C.F.R. § 63.31, the Commission may authorize construction of the proposed repository if, *inter alia*, DOE’s Application provides a “reasonable assurance” of preclosure safety and a “reasonable expectation” of postclosure safety.²⁴⁸ According to DOE, “Nevada has made no effort to demonstrate and has not even asserted that DOE has failed to satisfy the reasonable expectation standard identified by 10 C.F.R. § 63.101 as the general standard for postclosure matters.”²⁴⁹ Thus, DOE argues, Nevada has neglected to make the “materiality” showing required for contention admissibility.²⁵⁰ The Boards are not persuaded.

Underlying DOE’s argument is the assumption that “reasonable expectation” connotes less exacting obligations than does “reasonable assurance” — the standard applicable to most types of licensing cases that come before the NRC.²⁵¹ According to DOE, the reasonable expectation standard “requires a different level and type of technical proof”²⁵² than the reasonable assurance standard and

²⁴⁵ DOE Nevada Answer at 50-51.

²⁴⁶ *Id.* at 52.

²⁴⁷ See, e.g., *McGuire/Catawba*, CLI-02-17, 56 NRC at 9-10.

²⁴⁸ Specifically, with regard to safety, the Commission must find:

(1) That there is *reasonable assurance* that the types and amounts of radioactive materials described in the application can be received and possessed in a geologic repository operations area of the design proposed without unreasonable risk to the health and safety of the public; and

(2) That there is *reasonable expectation* that the materials can be disposed of without unreasonable risk to the health and safety of the public.

10 C.F.R. § 63.31(a) (emphasis added).

²⁴⁹ DOE Nevada Answer at 40.

²⁵⁰ See 10 C.F.R. § 2.309(f)(1)(iv).

²⁵¹ See, e.g., 10 C.F.R. §§ 50.35(c) (reactor construction permits), 50.57(a)(3) (reactor operating licenses), 52.24(a)(3) (early site permits), 52.54(a)(3) (standard design certifications), 52.97(a)(1)(iii) (combined licenses), 52.167(a)(2) (manufacturing licenses), 54.29(a) (renewed licenses).

²⁵² DOE Answer to Nevada at 41.

encompasses use of “cautious but reasonable approaches consistent with present knowledge in lieu of bounding or more conservative approaches [*sic*].”²⁵³ DOE further claims that the reasonable expectation standard takes into account inherent uncertainties in the postclosure model, and that “[t]o merely assert the existence of such uncertainties, without specifying their impact on a finding NRC must make in its issuance of the construction authorization, amounts to an improper challenge to Part 63, which explicitly recognizes that such uncertainties exist and cannot be eliminated.”²⁵⁴

In making this argument, DOE relies on statements of the EPA suggesting that “reasonable expectation” is a more flexible alternative to the standard NRC applies in reactor licensing cases.²⁵⁵ DOE finds these EPA statements to be relevant because, under the NWPA and the Energy Policy Act of 1992 (EnPA), the Commission’s technical requirements and criteria must be “consistent” with the radiological protection standards promulgated by EPA.²⁵⁶ Thus, DOE argues, “the proper application of the reasonable expectation standard must take into account the statements by EPA in promulgating the standards required by [EnPA].”²⁵⁷ At oral argument, however, DOE counsel appeared to retreat from this reliance on EPA’s statements, conceding that “I don’t think they have a great amount of weight or consideration in the discussion we have here.”²⁵⁸

At oral argument, DOE likewise retreated from the position that “reasonable expectation” and “reasonable assurance” call for different levels of proof. Instead, DOE acknowledged that the same standard of proof applies to both preclosure and postclosure safety — namely, proof by a preponderance of the evidence — but insisted that “the *methodology* for the Commission to reach its finding of reasonable assurance and reasonable expectation is different.”²⁵⁹ In support of this position, DOE pointed to 10 C.F.R. § 63.304, which lists four characteristics of the reasonable expectation standard.²⁶⁰ According to section 63.304, reasonable expectation:

²⁵³ *Id.* at 40.

²⁵⁴ *Id.* at 39.

²⁵⁵ *Id.* at 41-42.

²⁵⁶ See NWPA § 121(b)(1)(C), 42 U.S.C. § 10141(b)(1)(C); EnPA § 801(b)(1), 42 U.S.C. § 10141 note.

²⁵⁷ DOE Nevada Answer at 41 (citing 66 Fed. Reg. at 32,101-03; Proposed Rule: “Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV,” 70 Fed. Reg. 49,014, 49,020-21 (Aug. 22, 2005); Final Rule: “Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV,” 73 Fed. Reg. 61,256, 61,271-73 (Oct. 15, 2008)).

²⁵⁸ Tr. at 399.

²⁵⁹ Tr. at 380 (emphasis added).

²⁶⁰ Tr. at 363-64.

- (1) Requires less than absolute proof because absolute proof is impossible to attain for disposal due to the uncertainty of projecting long-term performance;
- (2) Accounts for the inherently greater uncertainties in making long-term projections of the performance of the Yucca Mountain disposal system;
- (3) Does not exclude important parameters from assessments and analyses simply because they are difficult to precisely quantify to a high degree of confidence; and
- (4) Focuses performance assessments and analyses on the full range of defensible and reasonable parameter distributions rather than only upon extreme physical situations and parameter values.

In DOE's view, these characteristics indicate a significant departure from the methodology applied under the reasonable assurance standard.

In response, Nevada contended that most of these four characteristics could also be used to describe reasonable assurance.²⁶¹ According to Nevada, any difference in the degree of acceptable uncertainty under the two standards is only "slight" and should not be granted any significance at the contention admissibility stage.²⁶²

The Boards agree with Nevada that DOE invokes a distinction without a difference. The NRC has repeatedly indicated that "reasonable expectation" and "reasonable assurance" mean virtually the same thing. In 2001, when it first decided to impose a "reasonable expectation" standard on postclosure safety rather than "reasonable assurance,"²⁶³ the Commission justified this change as an attempt to "avoid any misunderstanding and to achieve consistency with final EPA standards,"²⁶⁴ but not as an effort to lower the standard of proof that DOE must meet. In 2003, when Nevada challenged the "reasonable expectation" standard in federal court, arguing that the NWA contemplates a higher "reasonable assurance" standard, the Commission replied that the two standards are "[v]irtually [i]ndistinguishable."²⁶⁵ In 2007, the NRC reaffirmed this position in a letter denying Nevada's request for a binding interpretation of the phrase "reasonable expectation."²⁶⁶ And just recently, upon issuing the final rule implementing a dose standard after 10,000 years, the Commission once again confirmed that "the two terms are substantially identical."²⁶⁷

²⁶¹ Tr. at 387-89.

²⁶² Tr. at 389-90, 403-04.

²⁶³ See 66 Fed. Reg. at 55,739-40 (revising the standard for postclosure safety, based on critical comments received from EPA and others).

²⁶⁴ *Id.* at 55,740.

²⁶⁵ Final Brief for the Federal Respondents, *Nevada v. Nuclear Regulatory Comm'n*, No. 02-1116 (June 6, 2003) at 47, available at <http://www.state.nv.us/nucwaste/legal/nrc/index.htm>.

²⁶⁶ Letter from Karen D. Cyr, General Counsel for the NRC, to Martin G. Malsch, counsel for Nevada (May 18, 2007) (ADAMS Accession No. ML071920180).

²⁶⁷ Final Rule: "Implementation of a Dose Standard After 10,000 Years," 74 Fed. Reg. 10,811, 10,826 (Mar. 13, 2009).

The Commission has thus made clear its intention to treat “reasonable assurance” and “reasonable expectation” as equivalent standards. Moreover, the NRC is not bound by any contrary interpretation provided by EPA. The NWPA clearly delineates the differing roles of EPA and the NRC in the HLW proceeding. The EPA is responsible for promulgating standards for environmental protection, and the NRC is tasked with promulgating the criteria it will apply in the licensing proceeding.²⁶⁸ NRC’s criteria must not be “inconsistent” with EPA’s environmental protection standards.²⁶⁹ But nothing in the language of NWPA or EnPA limits NRC’s freedom to define the *standard* by which DOE must demonstrate safety, security, and environmental protection to the agency. Further, EPA itself has acknowledged that “NRC may establish requirements that are more stringent” than EPA’s “minimum requirements for implementation of the disposal standards.”²⁷⁰ EPA recognizes that NRC has the authority to interpret “reasonable expectation” more strictly than EPA would prefer. Thus, DOE’s reliance on EPA’s statements is misplaced; NRC has the authority to interpret the phrase “reasonable expectation” as it sees fit. And the Commission has made clear that, for purposes of the HLW proceeding, “reasonable assurance” and “reasonable expectation” mean virtually the same thing.

Finally, even if the Boards were to treat “reasonable expectation” as a lower standard of proof — or as requiring a different methodology — DOE provides no practical guidance on how that standard should be implemented. Presumably, if DOE were right, Nevada would be required to demonstrate a greater level of uncertainty in DOE’s Application in order to prevail on one of its contentions. But nowhere does DOE quantify the greater showing that Nevada must make. As Nevada noted at oral argument, neither the NRC nor DOE has articulated either the level of proof required or the amount of uncertainty allowed.²⁷¹ Thus, DOE would leave the Boards to implement an undefined standard of proof that falls somewhere between “reasonable assurance” and no assurance at all. This is not a workable standard for admitting contentions. Ultimately, the Boards would be forced to apply it no differently than they apply “reasonable assurance” — on a case-by-case basis, using their own best judgment under the circumstances.²⁷²

²⁶⁸ See NWPA § 121(a), (b)(1)(A), 42 U.S.C. § 10141(a), (b)(1)(A); EnPA § 801(a), 42 U.S.C. § 10141 note.

²⁶⁹ See NWPA § 121(b)(1)(C), 42 U.S.C. § 10141(b)(1)(C); EnPA § 801(b)(1), 42 U.S.C. § 10141 note.

²⁷⁰ Proposed Rule: “Environmental Radiation Protection Standards for Yucca Mountain, NV,” 64 Fed. Reg. 46,976, 46,997 (Aug. 27, 1999).

²⁷¹ Tr. at 388-90.

²⁷² See, e.g., *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-07-17, 66 NRC 327, 340 (2007) (stating that “whether the reasonable assurance standard is satisfied is based

(Continued)

G. Legal Issue Contentions

Under 10 C.F.R. § 2.309(f)(1)(i), a contention may raise an issue of *law* or fact. As the Commission's rules formerly made clear, "[i]f . . . the presiding officer determines that any of the admitted contentions constitute pure issues of law, those contentions must be decided on the basis of briefs or oral argument according to a schedule determined by the . . . presiding officer."²⁷³ Although this explanation was dropped from the regulations in 2004, the reason was merely to simplify the rules, not to change them.²⁷⁴

Not all the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) necessarily apply to legal issue contentions. For example, a purely legal issue contention obviously need not allege "facts" under section 2.309(f)(1)(v). Likewise, the requirement that a NEPA contention be accompanied by one or more affidavits, pursuant to 10 C.F.R. § 51.109(a)(2), ought not apply to a legal issue contention under NEPA, as that section requires only affidavits "which set forth factual and/or technical bases for the claim." There is no requirement that legal arguments be presented by affidavit.

The Boards have admitted as legal issue contentions: (1) certain contentions so identified by petitioners; (2) certain contentions not so identified by petitioners but identified as such by the Boards; and (3) certain contentions that contain factual allegations but that also are in part appropriate for resolution as a legal issue. Additionally, it should be recognized that some factual contentions have been admitted at this time contingent upon the outcome of a related legal issue contention.

Briefing schedules for legal issue contentions will be set forth in a subsequent order. The Boards contemplate that, after such legal issue contentions are resolved, many remaining related factual contentions may be appropriate for summary disposition.²⁷⁵

on sound technical judgment applied on a case-by-case basis"); CLI-09-7, 69 NRC 235, 263 (2009) (declining to disturb LBP-07-17) (" 'Reasonable assurance' . . . is based on sound technical judgment of the particulars of a case and on compliance with our regulations"); *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-08-22, 68 NRC 590, 648 (2008) (stating, in concurrence, that the reasonable assurance requires a licensing board to "tak[e] all relevant facts and circumstances into account").

²⁷³ 10 C.F.R. § 2.714(e) (2003). In 2004, the Commission codified the requirements of former section 2.714, together with rules regarding contentions set forth in Commission cases, in section 2.309. See 69 Fed. Reg. 2182.

²⁷⁴ See 69 Fed. Reg. at 2182 (Commission amending regulations to make them more "effective and efficient").

²⁷⁵ See 10 C.F.R. § 2.1025(a).

IV. RULINGS ON STANDING

The standing of most petitioners is not disputed. Nevada has standing as of right as the host state for the GROA pursuant to 10 C.F.R. §§ 2.309(d)(2)(iii) and 63.63(a) and Part III, Paragraph A of the Notice of Hearing.²⁷⁶ Nye has standing as the host county of the proposed Yucca Mountain repository pursuant to 10 C.F.R. § 2.309(d)(2)(iii). Pursuant to the Notice of Hearing, Nevada 4 Counties, Clark, Inyo, and White Pine need not address the standing requirements of 10 C.F.R. § 2.309(d) because they are AULGs as defined in section 2 of the NWPA,²⁷⁷ and have been designated as such by the Secretary of Energy.²⁷⁸ The standing of other petitioners is discussed below.

A. Caliente (CAB-01)

Contrary to 10 C.F.R. § 2.1013(c) and the directive in the Notice of Hearing requiring that all pleadings be filed via the agency's Electronic Information Exchange (EIE),²⁷⁹ Caliente's initial intervention petition, signed by its attorney, was not filed electronically and contains a single contention and nothing more.²⁸⁰ That filing did not even address, much less establish, Caliente's standing. Thus, Caliente did not demonstrate that it met the requirements for standing, a necessary requisite for party status in the proceeding. Nor did Caliente's petition contain a request, under 10 C.F.R. § 2.309(e), for discretionary intervention or address the six factors that must be balanced in considering such a request.

Subsequent to its initial filing, Caliente filed electronically the identical intervention petition out of time.²⁸¹ Thereafter, in its reply to the answers of DOE and the NRC Staff, Caliente attempted to remedy the numerous procedural and substantive defects in its nontimely petition, pleading counsel's ignorance of the Commission's electronic filing rules and inexperience regarding NRC practice.²⁸² That attempt, including its efforts to address the factors for nontimely filings in 10 C.F.R. § 2.309(c) and to establish its standing, came too late. A petitioner's reply must narrowly focus upon the legal and factual arguments first presented in its petition and cannot be used as a vehicle to remedy a very deficient petition to

²⁷⁶ See 73 Fed. Reg. at 63,031.

²⁷⁷ NWPA § 2(31), 42 U.S.C. § 10101(31).

²⁷⁸ 73 Fed. Reg. at 63,031.

²⁷⁹ *Id.* at 63,030.

²⁸⁰ Caliente Petition.

²⁸¹ See *id.* (filed electronically on January 5, 2009).

²⁸² See Caliente Reply.

which opposing parties have no opportunity to respond.²⁸³ Accordingly, Caliente has failed to demonstrate its standing and CAB-01 need not address such issues as Caliente's failure to file its initial petition via the EIE or its failure to file an affidavit in support of its proffered NEPA contention.

B. California (CAB-02)

Under the Commission's regulations, because the HLW repository is not to be located within California's boundaries, California is not entitled to automatic standing in this proceeding.²⁸⁴ Rather, it must show that it meets the requirements for standing set forth in 10 C.F.R. § 2.309(d). California asserts two primary injuries as the basis for its standing to intervene: the threat posed by transportation of radioactive waste through California, and the threat posed by the migration of radioactive material from Yucca Mountain into California's groundwater.²⁸⁵ California also seeks discretionary intervention under 10 C.F.R. § 2.309(e).²⁸⁶

In its answer, NRC Staff concedes that California has established standing based on the injury it alleges due to groundwater contamination.²⁸⁷ It does not address California's other asserted bases for standing. For its part, DOE objects to California's standing with regard to both of its asserted injuries. Regarding the transportation of radioactive waste, it insists that California's injury is too "speculative," given that transportation routes through California have not yet been identified.²⁸⁸ DOE also asserts that, because the selection of transportation routes occurs outside of the NRC licensing process, California's alleged injury cannot be redressed in the instant proceeding.²⁸⁹ With regard to groundwater contamination, DOE maintains that California makes no showing of whether any such contamination will occur, when it will occur, and what adverse effects it would have.²⁹⁰ Additionally, DOE opposes California's discretionary intervention.²⁹¹

²⁸³ See *Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 261 n.30 (2008) (citing *Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006) ("[a]llowing new claims in a reply . . . would unfairly deprive other participants of an opportunity to rebut the new claims")); *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225, *reconsideration denied*, CLI-04-35, 60 NRC 619 (2004).

²⁸⁴ See 10 C.F.R. § 2.309(d)(2)(iii).

²⁸⁵ California Petition at 9.

²⁸⁶ *Id.* at 15-18.

²⁸⁷ NRC Staff Answer at 29.

²⁸⁸ DOE California Answer at 24.

²⁸⁹ *Id.* at 23.

²⁹⁰ *Id.* at 24-25.

²⁹¹ *Id.* at 25-28.

The Board finds that California has established standing to intervene as a matter of right. It is undisputed that, if the NRC decides to grant DOE's Application, HLW will be transported through the State of California. This flows directly from the construction and operation of a repository at Yucca Mountain. This is not a "speculative" injury, as DOE insists, but an injury that is real and concrete. The fact that DOE has yet to identify specific transportation routes through California in no way diminishes this threat.²⁹² Finally, as California points out in its reply, the NRC does have the authority to redress this injury — namely, by ensuring that transportation impacts are addressed pursuant to NEPA. California is not asking the NRC to make routing decisions — decisions which fall under DOE's regulatory control. Rather, California is asking for an analysis of transportation impacts in DOE's EISs, a request that falls squarely within the scope of this proceeding. As discussed in Section III.B, *supra*, where the Boards reject the argument that NEPA contentions related to transportation cannot be adjudicated in this proceeding, NEPA obligates the NRC to analyze and to disclose all the environmental effects — not just those arising from the portions of the repository over which the NRC has direct regulatory control.

Thus, we find that California has met the requirements for standing as a matter of right, based on the threats related to the transportation of radioactive waste. Because we have determined that California is entitled to standing as of right, we need not reach California's request for discretionary intervention.

C. NCA (CAB-02)

NCA describes itself as "a Nevada non-profit corporation composed of a Board of Directors from Native American communities downwind from the Nevada Test Site that experience adverse health consequences known to be plausible from exposure to radiation."²⁹³ NCA contends that disposal of HLW at Yucca Mountain, combined with the history of weapons' testing at the Nevada Test Site, will result in radiological injuries to NCA's members.²⁹⁴ NCA also believes that "[f]ailure to protect Mother Earth from radioactive material" is to violate NCA's "free exercise of religion" under the First Amendment.²⁹⁵ NCA's asserted interest in the proceeding is its "longstanding interest in protecting the

²⁹² See *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 415 (2001) (finding that petitioner organizations had established standing based on their members' proximity to transportation routes, even where it was "not possible to predict with accuracy which of its members [were] most likely to be harmed or the extent of the damage"), *rev'd on other grounds*, CLI-02-24, 56 NRC 335 (2002).

²⁹³ NCA Petition at 3.

²⁹⁴ *Id.* at 5.

²⁹⁵ *Id.*

high quality of life, health and safety of this and future generations of Newe and Nuwuvi [the Native American people] from radiation health effects that injure them individually and collectively.’’²⁹⁶ As an alternative to standing as a matter of right, NCA also seeks discretionary intervention under 10 C.F.R. § 2.309(e).²⁹⁷

In its answer, DOE argues that, as a non-profit corporation, NCA has established neither representational nor organizational standing. As to organizational standing, DOE states that NCA ‘‘never identifies its members, nor does it describe who exactly it purports to be representing’’ and that NCA’s asserted interest in the proceeding is not sufficiently concrete and particular to establish a basis for standing.²⁹⁸ As to representational standing, DOE argues that NCA has failed to identify an individual member of the organization, to demonstrate that the member has standing in his or her own right, and to show that the member has authorized NCA to intervene on his or her behalf.²⁹⁹ Finally, DOE argues that NCA’s petition does not meet or even address the six factors required for a grant of discretionary intervention.³⁰⁰

The NRC Staff, largely mirroring the arguments that DOE makes, also asserts that NCA has failed to establish both representational and organizational standing.³⁰¹

NCA’s reply elaborates on its case for representational standing. Generally, a petitioner’s reply cannot be used to remedy a deficient petition, because opposing parties have no opportunity to respond.³⁰² NCA asks the Board to apply a standard of ‘‘fundamental fairness,’’ however, because NCA filed its initial petition without the assistance of counsel.³⁰³ At oral argument, both the NRC Staff and DOE acknowledged that, due to NCA’s prior lack of counsel, it would not be inappropriate for the Board to consider the declarations submitted with NCA’s reply.³⁰⁴ Accordingly, we will take those declarations into account in making our standing determination. The declarations are from three NCA members, identified by name and address, who live either in the vicinity of Yucca Mountain or adjacent to transportation routes projected to carry HLW to

²⁹⁶ *Id.*

²⁹⁷ *Id.* at 4.

²⁹⁸ DOE NCA Answer at 20-22.

²⁹⁹ *Id.* at 22-23.

³⁰⁰ *Id.* at 23-25.

³⁰¹ NRC Staff Answer at 19-22.

³⁰² *Palisades*, CLI-06-17, 63 NRC at 732; *Louisiana Energy Servs.*, CLI-04-25, 60 NRC at 225.

³⁰³ NCA Reply at 10-11; *see also Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 278 (2008); *Shaw AREVA MOX Services* (Mixed Oxide Fuel Fabrication Facility), LBP-07-14, 66 NRC 169, 188 (2007).

³⁰⁴ Tr. at 558-59.

and from the repository.³⁰⁵ Their declarations allege in detail the radiological and cultural injuries these individuals would suffer as a result of the NRC's decision to grant DOE's Application. Thus, we find that NCA has met the requirements for representational standing, and we grant NCA standing to intervene pursuant to 10 C.F.R. § 2.309(d).³⁰⁶

D. JTS (CAB-02)

Pursuant to 10 C.F.R. § 63.2, the Secretary of the Interior has found that the Timbisha Shoshone Tribe (Tribe) is an AIT for purposes of the NWPA.³⁰⁷ Thus, the Tribe is automatically entitled to participate in the Yucca Mountain proceeding pursuant to 10 C.F.R. § 2.309(d)(2)(iii). Initially, however, two separate tribal entities filed petitions to intervene, each purporting to be the Tribe's sole authorized representative. Those two entities, TSO and TIM, represented two factions that are embroiled in an ongoing disagreement over tribal leadership that is currently pending within the Bureau of Indian Affairs (BIA) and in federal district court.³⁰⁸ While those disputes remain unresolved, both entities initially sought to intervene as separate parties in this proceeding.

In its amended petition to intervene, TSO argued that the Boards should grant TSO standing to intervene on the basis of its status as an AIT.³⁰⁹ Alternatively, TSO asserted arguments for representational standing and discretionary intervention. For its part, TIM asserted standing on the sole basis of its status as an AIT, entitled to automatic standing.³¹⁰ That is, TIM claimed to be the duly authorized representative of the Tribe, without any regard for TSO's statements to the

³⁰⁵ NCA Reply, Exh. 3, Declaration of Ian Zabarte (Mar. 9, 2009), Exh. 6, Declaration of Pauline Esteves (Mar. 6, 2009), Exh. 7, Declaration of Calvin Meyers (Mar. 6, 2009).

³⁰⁶ For other standing requirements, *see* Section II.A, *supra*. Causation and redressability have not been challenged and appear to be satisfied with respect to NCA.

³⁰⁷ Letter from Department of the Interior, Assistant Secretary–Indian Affairs Carl J. Artman to Chairman Joe Kennedy of Timbisha Shoshone Tribe (June 29, 2007) at 4.

³⁰⁸ According to counsel for TIM and counsel for TSO, there are two or three administrative appeals pending in the BIA, and the Assistant Secretary for Indian Affairs will not make a final determination as to the recognized tribal council for roughly 5 months. Tr. at 498-502. Moreover, any such BIA determination is subject to judicial review under the Administrative Procedure Act. Tr. at 502. To complicate matters further, TIM argues that “some of these issues [regarding tribal leadership] are not issues for the BIA to determine. They are issues that are to be resolved by a sovereign tribe.” Tr. at 503.

³⁰⁹ TSO Amended Petition at 8-11. Because we grant TSO's motion for leave to file an amended petition, *see* Section X.B, *infra*, we now consider the arguments for standing raised in TSO's amended petition.

³¹⁰ TIM Petition at 2-4.

contrary.³¹¹ Alternatively, TIM argued that the Board should permit it to intervene on a discretionary basis under 10 C.F.R. § 2.309(e).³¹²

In their answers, both DOE and the NRC Staff conceded that the Tribe is an AIT and thus entitled to a presumption of standing under 10 C.F.R. § 2.309(d)(2)(iii).³¹³ Nevertheless, because these two separate entities filed petitions purporting to be the sole representative of the Tribe, both DOE and the NRC Staff maintained that only one should be granted standing as an AIT. According to DOE, the entity found not to be the Tribe's official representative should be denied participation in this proceeding for lack of standing.³¹⁴ The NRC Staff, on the other hand, did not take such a hard line. Rather, the NRC Staff conceded that, in the event TSO were found not to be entitled to represent the Tribe, TSO still met the requirements for representational standing.³¹⁵ Because TIM's petition did not specifically address representational standing, however, the NRC Staff insisted that TIM "should be required to specifically establish its authorization to represent the Tribe or address whether it, as a nongovernmental entity, meets the NRC's standing requirements."³¹⁶

At oral argument, the Board expressed concern about the competing bids for standing as representatives of the same AIT. The Board found that it was "in no position to resolve the dispute between TIM and TSO in terms of which group is the sole legitimate representative of the [Tribe]."³¹⁷ At the same time, however, the Board noted that Commission regulations might prevent it from admitting both parties as tribal representatives.³¹⁸ Indeed, section 2.309(d)(2)(ii) instructs a Board to grant party status only to "a *single* representative" for each AIT.³¹⁹ Thus, faced with the possibility that neither petitioner would attain party status, TIM and TSO agreed to confer regarding joint representation of the Tribe.³²⁰

On April 20, 2009, TIM and TSO filed a Joint Statement,³²¹ accompanied by a Letter of Understanding, setting forth their agreement to work together as a single participant in this proceeding until such time as the dispute between them

³¹¹ *Id.*

³¹² *Id.* at 14-18.

³¹³ DOE Answer to TSO Amended Petition at 23; NRC Staff Answer to TSO Amended Petition at 7; DOE TIM Answer at 7; NRC Staff Answer at 29-30.

³¹⁴ DOE TIM Answer at 7.

³¹⁵ NRC Staff Answer to TSO Amended Petition at 9-10.

³¹⁶ NRC Staff Answer at 32.

³¹⁷ Tr. at 497.

³¹⁸ Tr. at 529-30.

³¹⁹ 10 C.F.R. § 2.309(d)(2)(ii) (emphasis added).

³²⁰ Tr. at 532-34.

³²¹ Joint Statement of Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation ("TOP") and Timbisha Shoshone Tribe ("TIM") Regarding Participation as a Single Entity (Apr. 20, 2009).

is resolved. The Boards then issued an order recognizing the new entity, JTS, as a petitioner to intervene.³²² At this time, we find that JTS has established standing based on its status as the single designated representative of an AIT, pursuant to 10 C.F.R. § 2.309(d)(2)(iii). Henceforth, all of the contentions proffered by TIM and TSO will be treated as the contentions of JTS.

There remains one final matter to resolve. Prior to the formation of JTS, TSO moved for leave to file an answer to TIM's reply, along with a proffered answer.³²³ That answer related solely to the internal leadership dispute between TIM and TSO. Given that we now grant standing to JTS, the Board has no reason to consider the details of that dispute. Accordingly, we deny as moot TSO's motion for leave to file an answer to TIM's reply.

E. NEI (CAB-03)

NEI is "the policy organization responsible for representing the nuclear industry before the executive, judicial and legislative branches of government on regulatory, technical and legal issues that generally affect its members."³²⁴ NEI does not seek organizational standing, but rather representational standing on behalf of its members.³²⁵ For the reasons set forth below, we find that NEI has standing as of right. In the alternative, we find that NEI qualifies for discretionary intervention.

1. Standing as of Right

NEI asserts that affidavits submitted by its members that own nuclear power plants establish the grounds on which they merit standing: "their role and obligations as set forth in the NWPA," as well as "their direct safety, security, environmental, operational, and financial interests in the timely licensing of the Yucca Mountain waste repository."³²⁶ NEI argues that those interests can be affected: (1) "by the continuing unavailability of a repository"; (2) "by the need for additional and ongoing [spent fuel] onsite storage [at power plants]"; and (3) "by the proposed design of the repository."³²⁷ NEI also emphasizes the

³²²CAB Order (Accepting Joint Representation of Timbisha Shoshone Tribe) (Apr. 22, 2009) (unpublished).

³²³Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation's Motion for Leave to File an Answer to the Timbisha Shoshone Tribe's Reply to NRC Staff and DOE Answers to Its Motion to Intervene as a Full Party (Mar. 17, 2009).

³²⁴NEI Petition at 1-2.

³²⁵*Id.* at 1; *see also* Section II.A, *supra*.

³²⁶NEI Petition at 3.

³²⁷*Id.*

multi-billion-dollar contribution its members have been required to make to the Nuclear Waste Fund, which was established under the NWPA.³²⁸

NEI asserts that all those interests are within the “zone of interests” of the AEA, NEPA, and the NWPA.³²⁹ NEI points out that it has — without challenge — participated elsewhere in related Yucca Mountain matters: in the “pre-application” phase of this very agency adjudication; in numerous federal agency rulemakings; and in the federal court litigation (*NEI v. EPA*) discussed *supra*, where the D.C. Circuit determined that NEI had standing as an intervenor to challenge a federal regulation affecting repository design.³³⁰

Additionally, NEI bases its representational standing on radiological impacts to workers both at: (1) the repository, due to their increased exposure attributable to the alleged overdesign; and (2) reactor sites, due to the need for extended nuclear waste storage onsite if the licensing of the repository is delayed.³³¹ NEI’s original petition asserts that its membership includes “unions,”³³² although its supporting affidavits then came only from companies operating nuclear power plants and from NEI’s Director of the Yucca Mountain Project. These affidavits set forth the interests of NEI and its members, including unions.

DOE argues that NEI’s grounds for standing as of right are inadequate. Specifically, DOE asserts: (1) the economic interest of NEI’s members is not within the zone of interests protected by the statutes specifically at issue here, i.e., the AEA, the NWPA, and NEPA;³³³ (2) risks to repository workers do not affect NEI’s members;³³⁴ and (3) risks to workers at commercial nuclear sites are outside the scope of this proceeding, which DOE says is limited to impacts at the GROA.³³⁵

Finally, DOE contends that NEI’s past participation in both the pre-application stage of this proceeding and before the D.C. Circuit does not necessarily mean that NEI has standing here. It points out that there was no standing requirement for the PAPO proceedings.³³⁶ DOE also differentiates the facts of the *NEI v. EPA* case from those before this Board and argues that that case did not hold that NEI has standing generally under the NWPA or because some of its members would be harmed if the repository is delayed.³³⁷ Instead, DOE argues, injury-in-fact

³²⁸ *Id.* at 3-4, 8.

³²⁹ *Id.* at 1.

³³⁰ *Id.* at 5-6.

³³¹ *Id.* at 5 & n.5.

³³² *Id.* at 2; Tr. at 91-92.

³³³ DOE NEI Answer at 17.

³³⁴ *Id.* at 21-22.

³³⁵ *Id.* at 22-23.

³³⁶ Tr. at 95.

³³⁷ DOE NEI Answer at 20.

standing “was based on a specific record and a likely connection between the challenged regulation and harm to NEI’s members.”³³⁸

The NRC Staff’s arguments are similar to DOE’s. The NRC Staff adds, regarding NEI’s claim that its members will suffer “occupational risk and radiological exposures” due to interim storage and disposal, that NEI does not suggest that it represents the workers at their members’ power reactor sites (or at the repository site for that matter) or show that these workers have authorized NEI to act on their behalf.³³⁹

The key issues to be resolved are: (1) what are the “zones of interests” protected by the statutes at issue in this proceeding; and (2) whether the economic harm discussed in NEI’s petition is itself sufficient, or is sufficiently related to environmental or radiological harm, to allow standing under the AEA or NEPA.³⁴⁰ DOE argues that, in seeking standing based on the NWPA’s purpose of facilitating disposal of its members’ nuclear waste, NEI is impermissibly trying to “predicate standing on the overall purpose behind a statutory scheme, rather than a specific statutory provision.”³⁴¹ NEI asserts, in response, that this reading “fundamentally . . . ignores the zone of interests created by the NWPA.”³⁴² The Board agrees with NEI.

To be sure, economic interests are sometimes insufficient to establish standing. In the context of AEA licensing cases, the Commission frequently denies standing, for example, to competitors of an applicant or licensee who assert that their businesses would be injured if the pending request were granted.³⁴³ The Commission has insisted, in most instances, that economic interests must be linked to potential radiological or environmental risks.³⁴⁴

The situation here is different. First, NEI seeks intervention to support DOE’s Application based on its members’ economic interest in the availability of the repository. Rather than constituting a competitor or merely a “concerned

³³⁸ *Id.*

³³⁹ NRC Staff Answer at 26.

³⁴⁰ For other standing requirements, *see* Section II.A, *supra*. The Board focuses on the first requirement — that the petitioner has suffered a distinct harm that constitutes injury-in-fact within the zone of interests — because it is the only prong of the standing as of right test that the NRC Staff and DOE challenge in their answers. NEI does address the other two requirements — causation and redressability — in its petition. NEI Petition at 3.

³⁴¹ DOE NEI Answer at 21.

³⁴² NEI Reply at 7.

³⁴³ *See, e.g., International Uranium (USA) Corp.* (Request for Materials License Amendment), CLI-00-4, 51 NRC 88, 88-89 (2000).

³⁴⁴ *See, e.g., Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 336-38 (2002).

bystander,”³⁴⁵ NEI represents those who are not only within the zone of interests of the NWPA but also are the intended beneficiaries of that Act.

Indeed, they can claim to be the real parties in interest in the success of DOE’s Application, and have been supplying its financing through the targeted financial levy on their generation of power. Recognizing an economic standing interest in these circumstances is also consistent with the Commission’s *River Bend* decision, which acknowledged the analogous standing of the part-owner of a facility.³⁴⁶ And NEI’s taking of a position in favor of the repository is not disqualifying, for there is precedent for the principle that intervention is allowable to those who wish to support a proposal that will affect their interests if the proceeding “has one outcome rather than another.”³⁴⁷

NEI v. EPA is instructive as well. The D.C. Circuit granted NEI standing for several reasons. With respect to injury-in-fact, the court found “delaying the opening of the Yucca Mountain repository would inflict concrete harm on NEI members [who] expend substantial sums to operate their own storage facilities.”³⁴⁸ Additionally, NEI’s use of litigation to speed the licensing of the Yucca Mountain repository was found to be germane to NEI’s purpose and did not require the actual participation of any of its members individually.³⁴⁹

The court found that the test to demonstrate prudential standing is “not meant to be especially demanding.”³⁵⁰ Under that test — by which a party must show that its members’ concerns “arguably fall within the zone of interests protected or regulated by the statutory provision . . . invoked in the suit” — a party’s attempt to establish standing will fail “only if [the petitioner’s] interests are so marginally related to or inconsistent with the purposes implicit in the statute that it cannot reasonably be assumed that Congress intended to permit the suit.”³⁵¹ In *NEI v. EPA*, the court stated that, while Congress did intend for section 801(a) of the EnPA to protect the public, it is “equally obvious that Congress intended section 801(a) to facilitate construction of a permanent nuclear waste repository — the very interest that NEI advances here.”³⁵² Furthermore, “[a]s evinced in the NWPA and later in EnPA, Congress viewed EPA standards as a basic prerequisite

³⁴⁵ DOE NEI Answer at 5 (internal citations omitted).

³⁴⁶ *Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 48-50 (1994).

³⁴⁷ See, e.g., *Nuclear Engineering Co.* (Sheffield, Illinois, Low-Level Radioactive Waste Disposal Site), ALAB-473, 7 NRC 737, 743 (1978), cited with approval in *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 69 (1994).

³⁴⁸ 373 F.3d at 1279 (internal citations omitted).

³⁴⁹ *Id.* (internal citations omitted).

³⁵⁰ *Id.* (internal citations omitted).

³⁵¹ *Id.* at 1279-80 (internal citations omitted).

³⁵² *Id.* at 1280.

for developing an underground repository.’’³⁵³ This ‘‘congressional purpose,’’ according to the court, showed that ‘‘NEI’s interests ‘arguably’ fall within section 801(a)’s zone of interests, thus giving the organization prudential standing.’’³⁵⁴

We find unpersuasive the argument that the *Postal Workers* case³⁵⁵ suggests that NEI’s members’ economic interests are not within the zone of interests protected by the statutes that NEI invokes. Unlike NEI, the *Postal Workers* litigant tried to rely on very narrow statutory provisions to challenge the much broader aspects of a statute that had no meaningful relationship to the litigant’s situation.

Likewise, while DOE is correct that the Commission noted in a 1989 rulemaking that the industry’s interest in HLW is economic and ‘‘may not satisfy the Commission’s traditional, judicial test for standing,’’³⁵⁶ we do not agree that a passing observation by the Commission in a 20-year-old rulemaking — one that only states that economic interests ‘‘may’’ not support standing — is controlling. This is especially so because more recent precedent supports NEI’s standing in this proceeding.³⁵⁷

We thus conclude that the economic interests of its nuclear utility members in the Application confer standing upon NEI. But in any event, NEI has shown how the economic interests at stake are indeed linked to potential radiological or environmental risks. The allegedly overdesigned elements of the project, NEI contends, will ‘‘create occupational risks and exposures for workers at operating reactors and fuel storage installations, as well as workers at the Yucca Mountain site.’’³⁵⁸ In addition, there will be ‘‘[e]nvironmental impacts associated with the delay in decommissioning of sites . . . due to the continuing presence of used nuclear fuel.’’³⁵⁹ Other NEI members assert that an increase in duration of onsite storage will incur ‘‘operational and financial impacts, occupational radiation exposures, and security requirements.’’³⁶⁰

³⁵³ *Id.*

³⁵⁴ *Id.*

³⁵⁵ *Air Courier Conference v. American Postal Workers Union*, 498 U.S. 517 (1991).

³⁵⁶ Final Rulemaking: ‘‘Submission and Management of Records and Documents Related to the Licensing of a Geologic Repository for the Disposal of High-Level Radioactive Waste,’’ 54 Fed. Reg. 14,925, 14,931 (Apr. 14, 1989).

³⁵⁷ See, e.g., *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19, 26-27 (2003); *Ohio Edison Co.* (Perry Nuclear Power Plant, Unit 1), LBP-91-38, 34 NRC 229, 244-45 (1991).

³⁵⁸ NEI Petition, Attach. 1, Affidavit of Rodney McCullum in Support of the Standing of the Nuclear Energy Institute ¶ 8 (Dec. 2008).

³⁵⁹ NEI Reply at 3.

³⁶⁰ NEI Petition, Attach. 2, Affidavit of J.A. Stall Authorizing Representation by the Nuclear Energy Institute ¶ 9 (Dec. 9, 2008).

Beyond the affidavit submitted by NEI that its membership includes unions, it is clear that the utilities that are NEI members have a cognizable interest in the health and safety of their workplaces (whether or not individual workers formally authorize their employer or NEI to represent their interests). It is in the self-interest of NEI utility company members to protect their employees, to keep them on the job, and to avoid potential liabilities that could be caused by the radiological and environmental harms associated with extended onsite storage.

Furthermore, agency precedent supports the assertion that there are certain organizations for which such “authorization might be presumed.”³⁶¹ While this line of cases originated with a citizens group — Union of Concerned Scientists (UCS) — the similarities to NEI are instructive. Essentially, these cases hold that for certain organizations whose “organizational objectives . . . in regard to nuclear power are clearly defined and well advertised[,] there can be little doubt that it is a desire to support the pursuit of those goals that motivates the . . . participation” of their members.³⁶² The cases go on to state that “[i]n such a situation, it might be reasonably inferred that by joining the organization, the members were implicitly authorizing it to represent any personal interests which might be affected by the proceeding.”³⁶³ Based on NEI’s clearly defined and well-known positions on nuclear energy and the nuclear waste repository specifically — evidenced through its active participation in NRC regulatory and licensing activities and general advocacy in support of the Yucca Mountain repository — we can, under the “organizational objectives” doctrine, presume that both its company and union members have authorized NEI to act on their behalf for all issues for which they themselves could have standing.

Moreover, a supplemental affidavit from an NEI official did expressly state that five major national trade unions are NEI members (and that they expect that members of those unions will be employed at Yucca Mountain).³⁶⁴ While petitioners may not use their reply pleadings to provide new “threshold support” for their contentions,³⁶⁵ here NEI simply used its reply to clarify and to develop information included in its initial petition.

It is not of consequence that those unions did not expressly state that they authorized NEI to represent them in this matter. When an organization like NEI

³⁶¹ See *Consolidated Edison Co. of New York* (Indian Point, Unit 2), LBP-82-25, 15 NRC 715, 734 (1982) (internal quotations omitted) (quoting *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 396 (1979)); *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-536, 9 NRC 402, 404 n.2 (1979).

³⁶² *Indian Point*, LBP-82-25, 15 NRC at 734.

³⁶³ *Allens Creek*, ALAB-535, 9 NRC at 396.

³⁶⁴ NEI Reply, Attach. 1, Supplemental Affidavit of Rodney McCullum in Support of NEI’s Standing ¶¶ 2-3 (Feb. 24, 2009).

³⁶⁵ *Louisiana Energy Servs.*, CLI-04-35, 60 NRC at 623.

takes formal corporate action to initiate litigation not only germane but *integral* to its purpose (e.g., to file a petition here), that action can constitute the requisite, if implicit, “proof of authorization” that DOE would insist upon.³⁶⁶ That is how trade associations do business.³⁶⁷ In any event, utility company members have provided explicit justification for NEI to represent their interests, which, as we have seen, inherently include the protection of their employees.

In light of the Commission’s decision in *Palisades*,³⁶⁸ we do not address the question of whether NEI’s member unions have demonstrated here sufficient explicit or implicit authorization to allow them to speak for their members. In *Palisades*, where the challenge was to a license transfer that a union was concerned could affect the community and workers, the Commission held that unions could not — in light of the general reasons behind and purposes of their existence — be deemed to be the automatic representatives of their members for purposes of that litigation.³⁶⁹ Whether that same restriction would apply here — where the unions appear before us in their capacity as NEI members to promote what is presumably the very interest for which their members authorized them to join NEI — is a matter we need not address, since NEI’s standing already has sufficient foundation.

We find little to commend DOE’s assertion that health and safety impacts felt at distant nuclear plant sites caused by the delay in completion of its proposed repository are outside the scope of the proceeding. To the contrary, our NEPA jurisprudence reflects determinations that offsite impacts caused by onsite activities can support the admissibility of a contention. By parity of reasoning, the same principle can be considered in support of a petitioner’s health and safety-based standing, even if the offsite locations cannot be regulated in the proceeding in which standing is sought.³⁷⁰

2. *Discretionary Intervention*

In the alternative, NEI maintains that it qualifies for discretionary intervention

³⁶⁶ DOE NEI Answer at 13 (citing *Palisades*, CLI-07-18, 65 NRC at 410). Compare *Allens Creek*, ALAB-535, 9 NRC at 395-97, with *Associated General Contractors of North Dakota v. Otter Tail Power Co.*, 611 F.2d 684, 690-91 (1979).

³⁶⁷ *Hunt v. Washington State Apple Advertising Commission*, 432 U.S. 333, 342-45 (1977).

³⁶⁸ CLI-08-19, 68 NRC 251.

³⁶⁹ *Id.* at 259-61.

³⁷⁰ See *Wolf Creek*, CLI-77-1, 5 NRC at 8; see also *Greenwood*, ALAB-247, 8 AEC 936. We note that at oral argument, counsel for DOE admitted that DOE’s pleading on this issue was not as clear as it might have been and explained that DOE is simply asserting that “the NEI petition alleges that those radiological injuries are attributable not to the proposed activity, which is the Yucca Mountain Repository, not to the application that is before us, but to the sort of ancillary effect of having to continue to store radioactive waste at the nuclear power plants.” Tr. at 88-89.

based upon the six factors in 10 C.F.R. § 2.309(e). The three factors weighing in favor of intervention are: (1) the extent the petitioner’s participation “may reasonably be expected to assist in developing a sound record”;³⁷¹ (2) the nature and extent of the petitioner’s interest in the proceeding; and (3) the possible effect of a potential decision on that interest.³⁷² The three factors weighing against intervention are: (1) the availability of other means to protect the petitioner’s interest; (2) the extent that interest will be represented by an existing party; and (3) the extent that the petitioner’s participation will “inappropriately broaden the issues or delay the proceeding.”³⁷³

While NEI acknowledges that discretionary intervention is an “extraordinary procedure,” it asserts that “this *is* the extraordinary case in which discretionary intervention should be granted.”³⁷⁴ NEI maintains that: (1) it will assist in developing a sound record, as it will “provide direct, substantive expertise” via its staff, its contractors, and the staff of its members;³⁷⁵ (2) its members have “a direct and substantial interest” in the proceeding; and (3) any decision that may be issued will directly impact its members. Additionally, NEI argues that the factors weighing against intervention have little weight: (1) there is not another forum to address these issues; (2) no other party will address these issues because no other party supports the Application;³⁷⁶ and (3) its participation will not unduly broaden or delay the proceeding.³⁷⁷ NEI points out that its longstanding support of the repository program demonstrates that it is motivated to expedite the proceedings.³⁷⁸

DOE maintains that NEI has not shown that it should be allowed discretionary intervention.³⁷⁹ DOE focuses on two of the six relevant criteria: (1) the extent to which NEI “can be reasonably expected to assist in developing a sound record;”³⁸⁰ and (2) “the potential [that NEI’s participation would have] to inappropriately broaden or delay the proceeding.”³⁸¹ DOE argues that both factors militate against allowing discretionary intervention.

³⁷¹ 10 C.F.R. § 2.309(e)(1)(i).

³⁷² *Id.* § 2.309(e)(1)(ii), (iii).

³⁷³ *Id.* § 2.309(e)(2)(i)-(iii).

³⁷⁴ NEI Reply at 17-18.

³⁷⁵ NEI Petition at 7.

³⁷⁶ NEI asserts that DOE lacks the “vigor and technical expertise” of NEI and its interests are not identical to those of NEI. *Id.* at 8.

³⁷⁷ *Id.*

³⁷⁸ *Id.*

³⁷⁹ DOE NEI Answer at 24-28.

³⁸⁰ *Id.* at 24-25; *see also* 10 C.F.R. § 2.309(e)(1).

³⁸¹ DOE NEI Answer at 24, 27-28; *see also* 10 C.F.R. § 2.309(e)(2).

If NEI were found not to have adequately established its standing as of right, the situation before us presents an appropriate case to permit discretionary intervention. We recognize that the Commission has stated that discretionary intervention is an “extraordinary procedure” that will not be granted “unless there are compelling factors in favor of such intervention.”³⁸² We agree, however, with NEI that there are compelling factors in this instance to support discretionary intervention for NEI pursuant to 10 C.F.R. § 2.309(e).

NEI’s case for discretionary intervention is similar to that of the Alabama Electric Cooperative in *Perry*.³⁸³ Alabama Electric Cooperative was a direct beneficiary in another proceeding of license conditions similar to those at issue in that case and argued — even though it did not have an injury-in-fact — that it had a direct interest in the outcome of the case.³⁸⁴ Alabama Electric Cooperative was allowed discretionary intervention because the Board believed that its interests were within the zone of interests related to the proceeding and that, due to its extensive participation in similar proceedings in the past, it would provide valuable insight in developing a sound record.³⁸⁵

NEI’s members are certainly among the intended beneficiaries of the NWPA, if not also the real parties in interest in its implementation through the construction and operation of the proposed repository. There is no other party that we are prepared to say can represent their interests. Although DOE claims to do so, DOE ignores the years of controversy and litigation between DOE and the nuclear industry over that agency’s failure to take title and possession of spent nuclear fuel. The existence of that continuing controversy makes us hesitant to entrust NEI’s members’ interests entirely to DOE.

NEI’s members have represented that they have the expertise to contribute to the development of a sound record and there is no reason to doubt the accuracy of that representation. Among other things, NEI has put forward experts on the TSPA-related contentions it filed.

In short, NEI’s reliance upon the general expertise of its members and their employees, and the fact that its members have extensive experience in the handling and storage of spent fuel, is sufficient. On top of the other petitioners’ 309 proffered contentions, NEI would add nine more. To be sure, NEI’s participation might make the proceeding somewhat more complicated. Nonetheless, given the significance of NEI’s status regarding the Yucca Mountain proposal, the complexity of the matter, and the decades of delays on DOE’s part in preparing and filing the Application, we find that NEI’s ability to enhance the record, particularly as to TSPA matters, far outweighs any delay its participation might

³⁸² 69 Fed. Reg. at 2201.

³⁸³ LBP-91-38, 34 NRC 229.

³⁸⁴ *Id.* at 248-49.

³⁸⁵ *Id.* at 250-51.

cause. Petitioners have been granted discretionary intervention on similar grounds as NEI asserts, as well as for less compelling reasons.³⁸⁶

We do not think this conclusion conflicts with the Commission's *Siemaszko* decision, which made clear the hurdles an entity seeking discretionary intervention must overcome.³⁸⁷ There, discretionary intervention was denied because the group seeking discretionary intervention had filed no contentions of its own,³⁸⁸ had not demonstrated how its tangible interests (as opposed to its intellectual ones) would be affected by the proceeding, was essentially seeking only to support an existing party (the subject of the enforcement action), and had provided what was deemed insufficient information about the contribution its experts could be expected to make.³⁸⁹ In contrast, NEI has filed contentions of its own, demonstrated how its real interests will be affected, shown that no other entity can represent its interests, and put forward experts well versed in the contentions it has advanced. In our judgment, NEI meets the strict discretionary intervention criteria that the Commission reemphasized in *Siemaszko*.

V. RULINGS ON LSN COMPLIANCE

The LSN compliance of NEI, Nye, Nevada 4 Counties, California, and White Pine has not been challenged. Because Caliente has not established standing, as determined by CAB-01, its LSN compliance need not be addressed. The LSN compliance of other petitioners is discussed below.

³⁸⁶ *Id.* (granting discretionary intervention to an intervenor that benefited from a similar antitrust license condition in another proceeding and had previous experience with similar antitrust matters); *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) (granting discretionary intervention to a citizens group); *Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 2), LBP-79-1, 9 NRC 73, 87-88 (1979) (would have granted discretionary intervention to a citizens group that had shown that its experts could assist with the proceeding); *Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1148-49 (1977) (granting discretionary intervention to an intervenor who raised unique contentions and provided expert support); *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-363, 4 NRC 631, 633-34 (1976) (granting discretionary intervention to an intervenor who raised a serious issue and was well equipped to make a contribution to the record). We are aware, as the Commission pointed out in *Siemaszko*, that all of these cases were decided many years ago. *Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 716-17 (2006). Recognizing how extraordinary the procedure is and how seldom it should be utilized, however, we do not believe that its failure to be invoked (or to be approved by the Commission) in recent times ought to influence our decision today. *See id.* at 715-24.

³⁸⁷ *See id.* at 715-24.

³⁸⁸ The dissent points out, with some justification, that the contention requirement might be viewed as ordinarily inapplicable to enforcement proceedings. *See id.* at 725-26.

³⁸⁹ *Siemaszko*, CLI-06-16, 63 NRC at 719-24.

A. Nevada (CAB-01)

Although not required to do so,³⁹⁰ Nevada asserts in its petition that it submitted “an adequate and timely initial LSN certification” and “adequate and timely supplemental certifications,” as well as “participated fully in all pre-application phases of this proceeding before two licensing boards and the Commission.”³⁹¹ DOE challenges this assertion as failing to meet the requirements for demonstrating substantial and timely compliance under 10 C.F.R. § 2.1012(b)(1).³⁹² DOE argues that Nevada cannot demonstrate substantial and timely compliance with the LSN requirements because it has not properly reviewed and produced all of its documentary material.³⁹³

First, DOE alleges that, in a number of Nevada’s proffered contentions, the asserted supporting material for the contention lacks LSN numbers or attached copies of the documents, and concludes, therefore, that Nevada has not produced all of its supporting documentary material.³⁹⁴ Second, DOE claims that Nevada has not produced all of its nonsupporting documentary material, alleging that: (1) the call memos used by Nevada to guide its experts and staff on identifying documentary material do not ask for a review and production of nonsupporting material following DOE’s submittal of its Application; (2) Nevada did not update its call memos to remedy a too-narrow interpretation of what constituted nonsupporting documentary material, nor did it state in its petition that it updated them; and (3) the small quantity of the material produced after Nevada’s initial certification signifies that Nevada could not have produced all of its nonsupporting documentary material.³⁹⁵ Third, DOE argues that Nevada has not produced all of the reports and studies prepared by or on behalf of Nevada because there are experts who have worked for Nevada for a number of years and DOE therefore suspects that there are likely to be additional reports and studies in existence.³⁹⁶ Further, DOE declares that, because Nevada’s recent production includes some documents that predate Nevada’s initial certification, this calls into question Nevada’s initial certification and indicates that Nevada’s word that it has complied is insufficient to demonstrate compliance.³⁹⁷

In its reply, Nevada contends that DOE’s arguments are an attempt to relitigate

³⁹⁰ See Section II.B, *supra*.

³⁹¹ Nevada Petition at 4.

³⁹² DOE Nevada Answer at 16.

³⁹³ *Id.*

³⁹⁴ *Id.* at 16-17.

³⁹⁵ *Id.* at 17-25.

³⁹⁶ *Id.* at 25-27.

³⁹⁷ *Id.* at 26-27; *see also id.* at 16 (claiming that demonstrating compliance under section 2.1012(b) requires attachment of affidavits or other factual support).

the challenges that DOE made in its failed motion to strike Nevada's initial LSN certification.³⁹⁸ Rebutting DOE's challenges to Nevada's production of supporting documentary material, nonsupporting documentary material, and documentary material in the form of reports and studies, Nevada maintains that DOE's allegations are based upon mere speculation and an erroneous analysis of its LSN document collection.³⁹⁹ In addition, Nevada points out that DOE improperly relies on the dissenting opinion from the PAPO Board's ruling denying DOE's motion to strike, notwithstanding the fact that this opinion was rejected by a majority of that Board, whose decision was later affirmed by the Commission on appeal.⁴⁰⁰ Nevada argues that DOE has failed to show that any particular document is missing; Nevada reiterates throughout its petition and reply, consistent with its duty to comply with the good faith standard, that if any document is missing, Nevada will provide assistance to DOE in locating the material.⁴⁰¹ Ultimately, Nevada submits that it has acted in good faith to make all of its documentary material available on the LSN and that it is in full compliance with the LSN requirements, and attaches a detailed declaration of one of its counsel personally involved in Nevada's efforts to ensure compliance with all LSN regulations.⁴⁰²

There is no need for a point-by-point recitation of Nevada counsel's declaration. It suffices to note that it provides a full, complete, and detailed explanation and response to DOE's circumstantial claims. It amply demonstrates that DOE's charges regarding alleged deficiencies in Nevada's LSN document collection are, at best, based upon speculation, conjecture, and erroneous inferences. Counsel's declaration, which forms the underpinnings of Nevada's reply, adequately answers each of DOE's factually unsubstantiated allegations. The declaration spells out the steps Nevada voluntarily took to address each of the points raised by the dissent to the PAPO Board majority's ruling denying DOE's earlier motion to strike Nevada's certification of its LSN document collection,⁴⁰³ even though Nevada

³⁹⁸ Nevada DOE Reply at 15; *see U.S. Department of Energy (High-Level Waste Repository), LBP-08-5, 67 NRC 205 (2008), aff'd, CLI-08-22, 68 NRC 355 (2008).*

³⁹⁹ Nevada DOE Reply at 18-29.

⁴⁰⁰ *Id.* at 15.

⁴⁰¹ *See, e.g.,* Nevada Petition at 14-15; Nevada DOE Reply at 19.

⁴⁰² Nevada DOE Reply at 12, 18; *id.*, Attach. 1, Declaration of Charles J. Fitzpatrick ¶¶ 1-3 (Feb. 24, 2009) [Fitzpatrick Decl.].

⁴⁰³ *See* Nevada DOE Reply at 2, 5-12; Fitzpatrick Decl. ¶¶ 4-5; *U.S. Dep't of Energy, LBP-08-5, 67 NRC 205; id.* at 218 (Karlín, J., dissenting).

disagreed with the dissent's unsupported position⁴⁰⁴ and the majority's ruling was affirmed by the Commission.⁴⁰⁵

In other words, Nevada re-reviewed all of the documents in its possession, although it was not required to do so, to ensure that it did not neglect to produce any documentary material in its initial document production.⁴⁰⁶ The declaration also spells out the steps Nevada took to meet the subsequent obligation to review and produce documentary material that arose when DOE's Application was filed and Nevada had taken a position in the proceeding by filing contentions.⁴⁰⁷ Indeed, at oral argument, DOE appeared to abandon its challenge to the completeness of Nevada's LSN document production, stating that "[w]e'll accept Mr. Fitzpatrick's [Nevada's counsel] representation."⁴⁰⁸

⁴⁰⁴ See Nevada DOE Reply at 16-17; Fitzpatrick Decl. ¶ 5(h).

⁴⁰⁵ See *U.S. Dep't of Energy*, CLI-08-22, 68 NRC at 358, 359. In LBP-08-5, 67 NRC at 209-10, the PAPO Board majority held, over a lengthy dissent, that DOE as the movant failed to meet its burden of proof pursuant to 10 C.F.R. § 2.325. The Commission in CLI-08-22, 68 NRC at 358, affirmed only that holding.

In its ruling, the PAPO Board majority also responded to the dissent's arguments, identifying two separate and independent reasons why the dissent provided no justification for the rejection of the Nevada certification. Apparently reading the majority's response to the dissent as an additional holding, the Commission neither considered nor expressed any view on it. CLI-08-22, 68 NRC at 358. In responding to the dissent's lengthy assertions, the PAPO Board majority concluded that DOE had not raised the numerous factual issues upon which the dissent fixated. LBP-08-5, 67 NRC at 212. Additionally, the majority determined that at the current stage of the proceeding the dissent's legal premise regarding supporting and nonsupporting documentary material (DM-1 and DM-2, respectively) within the meaning of 10 C.F.R. § 2.1001 was faulty, stating that:

In short, it is only information that either supports or fails to support a party's "position in the proceeding" that comes within the ambit of DM-1 and DM-2. Yet, manifestly, no potential party (i.e., petitioner) has such a position prior to the institution of the proceeding — an event that necessarily abides the filing and docketing of the license application and the filing of contentions.

Id. at 213 (footnote omitted). In so stating, the PAPO Board majority was merely reiterating the same basic point, ignored by the dissent, that a unanimous PAPO Board had made a mere 5 months earlier in the FCMO:

After contentions are filed, and the parties take positions, the duty to supplement will expand to a third category. This is because "documentary material" includes information a participant intends to rely on or cite "in support of its position in the proceeding" (Class 1) and information that "does not support that information or that party's position" (Class 2), 10 C.F.R. § 2.1001, and parties cannot assess the full extent of these two classes of documentary material (and produce it) until contentions are filed and positions known.

FCMO at 3 n.5. The PAPO Board's FCMO was neither appealed by a potential party nor reviewed by the Commission *sua sponte*.

⁴⁰⁶ Fitzpatrick Decl. ¶¶ 4-5.

⁴⁰⁷ *Id.*

⁴⁰⁸ Tr. at 699.

Thus, as a majority of the PAPO Board previously determined in its decision denying DOE's motion to strike, DOE's challenges here are similarly nothing more than speculation and conjecture that Nevada's LSN production is incomplete.⁴⁰⁹ Without a great deal more, there is no basis upon which the Board can or should make what amount to factual findings regarding the insufficiency of Nevada's LSN production.

At this stage of the proceeding, all parties and petitioners already have had the opportunity to challenge, with motions to strike, the LSN certifications of any other parties or petitioners in the pre-license application phase of the proceeding. Absent a credible factual challenge to the sufficiency of the production of documentary material under 10 C.F.R. § 2.1003, all that is now required under the regulations are Nevada's initial and monthly supplemental certifications.⁴¹⁰ DOE has not disputed that Nevada made the required certifications, nor could it, because Nevada has shown that it is in substantial and timely compliance with this requirement. Nevada made its initial certification on January 17, 2008,⁴¹¹ and made certifications of its monthly supplementations thereafter.⁴¹² Nevada was also a full participant in the pre-license application phase of this proceeding.⁴¹³ It bears repeating that, although Nevada need not have made its compliance assertions in its petition, and making them in its reply would suffice, Nevada attached to its reply a declaration from counsel indicating the steps Nevada has taken to ensure compliance. Although including such documentation was unnecessary, it more than demonstrates Nevada's substantial and timely compliance with the LSN requirements.

B. Clark (CAB-01)

Although DOE argues that Clark is not in substantial and timely compliance with the LSN requirements, the Board concludes that it is and rejects DOE's arguments to the contrary. Specifically, DOE initially claimed that Clark should be denied party status in this proceeding pursuant to 10 C.F.R. § 2.1012(b)(1) because it failed to address its compliance with the LSN requirements in its petition.⁴¹⁴ As

⁴⁰⁹ *U.S. Dep't of Energy*, LBP-08-5, 67 NRC at 210.

⁴¹⁰ *See* 10 C.F.R. §§ 2.1003(e), 2.1009(b); SCMO at 21-22; RSCMO at 21; *see also* 10 C.F.R. § 2.1012(c).

⁴¹¹ Nevada Petition at 4.

⁴¹² *See, e.g.*, The State of Nevada's Certification of Compliance (Jan. 17, 2008); The State of Nevada's Certification of LSN Supplementation (Feb. 1, 2008; Feb. 26, 2008; Mar. 31, 2008; Apr. 28, 2008; May 30, 2008; June 27, 2008; July 30, 2008; Aug. 29, 2008; Sept. 29, 2008; Oct. 30, 2008; Nov. 25, 2008).

⁴¹³ Nevada Petition at 4.

⁴¹⁴ DOE Clark Answer at 4.

discussed in Section II.B, *supra*, however, section 2.1012(b)(1) requires no such affirmative statement of LSN compliance in the petition. Moreover, it seems that DOE conceded this point at oral argument,⁴¹⁵ so it would now appear that DOE agrees that Clark's petition should not be denied on this ground.

DOE argues that Clark cannot demonstrate substantial and timely compliance because it has not properly reviewed and produced all of its documentary material as required by 10 C.F.R. § 2.1003. As support for this assertion, DOE questions whether the sixty-nine documents Clark made available on the LSN represent all of Clark's documents "in light of the reported millions of dollars the County has spent on Yucca Mountain-related work product."⁴¹⁶ Additionally, DOE points out that the CVs of two of Clark's experts, Dr. Alvin Mushkatel and Dr. Sheila Conway, cite documents that are not included in Clark's LSN production, and that there are no documents on the LSN that were authored by Clark expert Dr. Dennis Bley.⁴¹⁷ According to DOE, this indicates that Clark has failed to make available all reports and studies "prepared by it or on its behalf" as defined under 10 C.F.R. § 2.1001.⁴¹⁸

DOE also argues that Clark has not produced all of its nonsupporting documentary material because: (1) it did not state in its petition that it conducted a review for this material after it agreed to modify its review procedures in an August 2008 settlement agreement with DOE that resolved DOE's motion to strike⁴¹⁹ Clark's initial LSN certification;⁴²⁰ (2) "the limited number of documents" produced after Clark modified its procedures, particularly because they are dated within the past few years and a significant percentage of them are not nonsupporting documents, indicates that a proper review was not conducted;⁴²¹ and (3) there is an absence of internal memoranda and e-mails in Clark's LSN production, which would be the documents "expected to contain non-supporting information."⁴²² In a footnote, DOE also notes that there is an absence of "graphic-oriented documentary material" as delineated in 10 C.F.R. § 2.1003(a)(2), other than what is included in already-produced reports in Clark's LSN collection.⁴²³

⁴¹⁵ See Tr. at 692-93.

⁴¹⁶ DOE Clark Answer at 5.

⁴¹⁷ *Id.* at 5-7.

⁴¹⁸ *Id.* at 7-8.

⁴¹⁹ See The Department of Energy's Motion to Strike January 16, 2008 Certification of Clark County (Jan. 28, 2008); Jointly Proposed Order on the Department of Energy's Motion to Strike January 16, 2008 Certification of Clark County (Aug. 13, 2008) [Jointly Proposed Order]; PAPO Board Order (Ruling on Department of Energy Motion to Strike Certification of Clark County) (Aug. 26, 2008) (unpublished).

⁴²⁰ DOE Clark Answer at 8.

⁴²¹ *Id.* at 8-9.

⁴²² *Id.* at 9.

⁴²³ *Id.* at 8 n.7.

As Clark points out in its reply, however, “the DOE’s efforts to ‘prove’ that [Clark] has documents that it should have posted but did not are factually incorrect and premised on nothing but the DOE’s own conjecture and presumptions.”⁴²⁴ DOE’s arguments here are similar to those presented in DOE’s failed attempt to strike Nevada’s LSN certification in 2008 and DOE’s failed attempt to challenge the sufficiency of Nevada’s LSN compliance, which was rejected above, in that they are based upon speculation, conjecture, and erroneous inferences. Its arguments fall short of a credible factual challenge to the sufficiency of Clark’s production of documentary material under 10 C.F.R. § 2.1003. Moreover, to the extent DOE alleges that Clark lacks the requisite procedures for complying with the LSN requirements, without a showing that Clark reversed its policy for the review and production of documentary material in violation of the August 2008 settlement agreement, DOE would be seeking to undo what was already resolved in that agreement.⁴²⁵

Even assuming DOE had raised a sufficient factual challenge to Clark’s LSN document collection, Clark responds to DOE’s challenges to the substance of that collection. Clark asserts that “[its] production is in line with its resources, its policies, and the narrow scope of its contentions.”⁴²⁶ Regarding its production of reports and studies, Clark asserts that “[t]he reports or studies that were prepared by Drs. Conway and Mushkatel on behalf of [Clark] have indeed been posted on the LSN timely, and were cited appropriately in [Clark’s] Petition.”⁴²⁷

Clark does not directly address, however, DOE’s answer insofar as it points out that an apparent 2007 update of a document listed in Dr. Conway’s CV is not included on the LSN even though Clark produced what appears to be a version of the report dated August 2005.⁴²⁸ If Clark determines the document to have been mistakenly left out of its LSN collection, it should correct its error and produce the document promptly. If that is the case, it does not necessarily mean that Clark would not be in substantial and timely compliance with the LSN requirements. As DOE said in its response to Nevada’s 2004 motion to strike its LSN certification in the PAPO proceeding, “[n]o participant’s production will attain the unreachable

⁴²⁴ Clark Reply at 9.

⁴²⁵ See Jointly Proposed Order at 1, stating:

To resolve that Motion, DOE and [Clark] conferred and [Clark] agreed to revise its [LSN procedures], assured DOE that it had and would continue to make available on the LSN all its Documentary Material, implemented document preservation procedures inclusive of e-mails, and agreed to revise its certification language. Accordingly, to resolve DOE’s motion, DOE and [Clark] jointly propose that the PAPO Board enter an order allowing [Clark] to substitute a revised certification effective January 16, 2008.

⁴²⁶ Clark Reply at 9.

⁴²⁷ *Id.* at 10.

⁴²⁸ See DOE Clark Answer at 7.

goal of perfection, and no participant's judgment calls will be free from good faith disagreements. Such disputes, however, do not make a participant's certification 'unlawful' or 'invalid.'⁴²⁹ That is the nature of the good faith standard embodied in the LSN certification requirement.

With regard to e-mails and internal memoranda, Clark responds that "substantive discussions relative to the HLW" take place via teleconference or face-to-face meetings.⁴³⁰ According to Clark, if it did have any e-mails or internal memoranda to produce, its current review procedures would uncover them.⁴³¹ Finally, with regard to nonsupporting documentary material, Clark asserts that it does not have a duty actively to seek documentary material (i.e., the material must first be in its possession or control to require production) and that it is not required to explain which of its documentary material supports or does not support its position.⁴³² Clark states that it has met its burden to produce nonsupporting documentary material, "and if there are any such documents, they exist on the LSN."⁴³³

Absent a credible factual challenge to the sufficiency of Clark's LSN production, all that is needed with respect to Clark's compliance is a statement of compliance in its reply. That is what Clark has done here. It states in its reply that it filed its initial LSN certification on January 16, 2008,⁴³⁴ and has continued to supplement its LSN production since August 2008, which is the date after which DOE withdrew its motion to strike Clark's initial certification pursuant to the settlement agreement with Clark.⁴³⁵ In addition, Clark emphasizes that it has performed an adequate review and production of its documentary material⁴³⁶ and makes the incontrovertible observation that it "cannot post documents that do not exist."⁴³⁷

The Board notes that Clark did not attach to its reply a declaration of its compliance as did Nevada (although, as stated above with respect to Nevada, it was not required to do so). Under 10 C.F.R. § 2.304(d)(1) — which is applicable

⁴²⁹ Answer of the Department of Energy to the State of Nevada's Motion to Strike (July 22, 2004) at 2; *see also U.S. Dep't of Energy*, LBP-04-20, 60 NRC at 313 & n.26 (pointing out that DOE agrees that "perfection is not required" and "any production is bound to have some 'human mistakes'").

⁴³⁰ Clark Reply at 12-13 & n.26.

⁴³¹ *Id.* at 12.

⁴³² *Id.* at 13 & n.29.

⁴³³ *Id.* at 14.

⁴³⁴ *Id.* at 4.

⁴³⁵ *See, e.g.*, Clark County Certification of Licensing Support Network Supplementation (Feb. 22, 2008; Mar. 28, 2008; Apr. 30, 2008; May 30, 2008; June 27, 2008; July 31, 2008; Aug. 29, 2008; Oct. 1, 2008; Oct. 29, 2008; Nov. 26, 2008; Dec. 30, 2008).

⁴³⁶ Clark Reply at 9-10, 14.

⁴³⁷ *Id.* at 12.

in this proceeding because Subpart J contains no specific signature requirement⁴³⁸ — an electronic signature on a document serves as the signer’s representation under subsection (d) that “the document has been subscribed in the capacity specified with full authority, that he or she has read it and knows the contents, that to the best of his or her knowledge, information, and belief the statements made in it are true, and that it is not interposed for delay.”⁴³⁹ In light of the representations that were made by counsel’s signing the reply, Clark’s reply is the functional equivalent of a declaration. Accordingly, the Board finds that Clark’s representations in its reply amply demonstrate that it is in substantial and timely compliance with the LSN requirements.

C. JTS (CAB-02)

Although TIM and TSO are now recognized as a single entity under the name of JTS, looking back we can only consider each entity’s separate compliance with the LSN requirements. As explained below, neither TIM nor TSO has demonstrated substantial and timely compliance pursuant to 10 C.F.R. § 2.1012(b)(1). Thus, going forward, JTS must make a demonstration of subsequent compliance pursuant to section 2.1012(b)(2) before we can grant JTS party status.

1. TIM

In its answer to TIM’s petition, DOE argues that TIM failed to demonstrate substantial and timely compliance with the LSN requirements and, for that reason, must be denied party status under section 2.1012(b)(1).⁴⁴⁰ In its reply, however, TIM insists that it complied with all the LSN requirements in a substantial and timely manner, with the exception of the requirement to file a certification under section 2.1009(b).⁴⁴¹ Coincident with its reply, TIM filed a motion, accompanied by a proffered LSN certification, requesting that the Board accept its certification out of time for good cause.⁴⁴² In this motion, TIM seeks to demonstrate that “numerous internal and external difficulties” prevented it from filing its initial certification on time.⁴⁴³ TIM insists, however, that “all documents referenced by the Tribe are either generally publicly available documents, or documents listed

⁴³⁸ See 10 C.F.R. Part 2, Subpart J (even though section 2.304 is not listed in 10 C.F.R. § 2.1001 as a section that takes precedence over the provisions of Subpart J).

⁴³⁹ 10 C.F.R. § 2.304(d).

⁴⁴⁰ DOE TIM Answer at 4-6.

⁴⁴¹ TIM Reply at 6.

⁴⁴² Motion for Certification of Licensing Support Network Out of Time for Good Cause (Mar. 11, 2009) [TIM Motion for LSN Certification].

⁴⁴³ *Id.* at 2.

on other (potential) parties certified LSNs. Therefore, there is no prejudice to any party including DOE and NRC Staff.’’⁴⁴⁴

Although the NRC Staff raises no objection to TIM’s motion, DOE objects on several grounds. First, DOE argues that TIM’s proffered certification addresses the wrong time period — namely, it demonstrates compliance as of March 11, 2009, rather than as of the date on which TIM filed its petition to intervene.⁴⁴⁵ This argument demonstrates a misunderstanding of the requirements of Subpart J. As explained in Section II.B, *supra*, the time to judge a petitioner’s compliance cannot come before the petitioner has filed its reply to any DOE and NRC Staff answers — the end point of the petitioner’s request for participation as a party. Thus, TIM’s proffered certification is correct to demonstrate compliance as of March 11, 2009, the date on which TIM filed its reply.

Second, DOE argues that TIM’s motion fails to demonstrate LSN compliance even as of March 11, 2009.⁴⁴⁶ According to DOE, TIM’s proffered certification is “facially inadequate” because it provides no information about TIM’s LSN procedures.⁴⁴⁷ This is a problem, DOE claims, because TIM previously provided DOE with a copy of its procedures on January 13, 2009, and those procedures were seriously deficient.⁴⁴⁸ Specifically, DOE alleges, TIM failed to account for certain categories of “documentary material,” as defined in section 2.1001, that TIM is required to make available on the LSN under section 2.1003.⁴⁴⁹ When DOE notified TIM about alleged deficiencies in its procedures, DOE claims that TIM failed to respond, and instead simply filed its motion for late LSN certification.⁴⁵⁰ In DOE’s view, the Board cannot accept this late certification without some sort of assurance that TIM has corrected the deficiencies in its procedures.

For its part, TIM insists that DOE’s objections to its procedures are “excessive in nature given the circumstances and content/procedures of other certified LSNs.”⁴⁵¹ TIM insists that “[t]here is no distinction as to the procedures that the Tribe is following compared with other certified LSNs.”⁴⁵² Despite this insistence, however, TIM neglects to provide the Board with any examples of procedures drafted by other “certified LSNs.” Therefore, we have no measure by which

⁴⁴⁴ *Id.* at 5.

⁴⁴⁵ The Department of Energy’s Opposition to March 11, 2009 Motion of Timbisha Shoshone Tribe for Certification of Licensing Support Network Out of Time for Good Cause (Mar. 23, 2009) at 4-5 [DOE Answer to TIM Motion for LSN Certification].

⁴⁴⁶ *Id.* at 5.

⁴⁴⁷ *Id.* at 6.

⁴⁴⁸ *Id.* at 6-7.

⁴⁴⁹ *Id.* at 7-10.

⁴⁵⁰ *Id.* at 2-4.

⁴⁵¹ TIM Motion for LSN Certification at 5.

⁴⁵² *Id.*

to judge TIM's procedures. In any case, looking at the substance of DOE's objections, the deficiencies it alleges appear to be legitimate. For example, DOE notes that TIM's procedures call for the posting of only "supporting documents material," a small subset of all the documentary material required on the LSN.⁴⁵³ Additionally, DOE faults TIM's procedures for suggesting that compliance with section 2.1003 can be achieved by creating a link to a document available on the Internet.⁴⁵⁴ Indeed, the PAPO Board has made clear that a document's availability on the Internet does not authorize its exclusion from the LSN.⁴⁵⁵

As the preceding examples make clear, DOE's challenges to TIM's procedures are more than mere speculation and conjecture, and indeed constitute credible factual challenges to the sufficiency of TIM's documentary production. At the same time, in recognizing DOE's challenges, we do not hold TIM to an impracticable standard. As the PAPO Board has stated, "perfection is not required" and "any production is bound to have some 'human mistakes.'" ⁴⁵⁶ Still, TIM must make a "good faith" effort to produce all documentary material.⁴⁵⁷ If TIM abides by its procedures as written, assuming they have not changed since January 13, 2009, those procedures may well exclude important documentary material from the LSN. Moreover, even though DOE admits it has suffered no prejudice to date,⁴⁵⁸ it might suffer prejudice as the proceeding continues beyond the contention admissibility phase. For this reason, we deny TIM's motion for LSN certification out of time; we find that TIM has failed to demonstrate substantial and timely compliance; and we decline to grant TIM, now known as JTS, party status under section 2.1012(b)(1).

Section 2.1012(b)(2), however, allows a person denied admission later to request party status "upon a showing of subsequent compliance with the requirements of § 2.1003." Thus, in accordance with section 2.1012(b)(2), JTS will be admitted as a party in the proceeding once it has complied with the requirements of section 2.1003. At such time as JTS can demonstrate compliance, JTS will be granted party status, "conditioned on accepting the status of the proceeding at the time of admission."⁴⁵⁹ We advise JTS, however, that in preparing to make a demonstration of subsequent compliance, it should make every effort to consult with DOE as required under section 2.323(b). Indeed, section 2.323(b) is designed to encourage discussion and exchange of information between the parties, so that if filing a motion becomes necessary, the parties can at least inform the Board of

⁴⁵³ DOE Answer to TIM Motion for LSN Certification at 7.

⁴⁵⁴ *Id.* at 8-9.

⁴⁵⁵ *U.S. Dep't of Energy*, LBP-04-20, 60 NRC at 329-30.

⁴⁵⁶ *Id.* at 313 & n.26.

⁴⁵⁷ *Id.* at 314-15.

⁴⁵⁸ *Tr.* at 567.

⁴⁵⁹ 10 C.F.R. § 2.1012(b)(2).

what facts remain in contention. The Board suggests that JTS take no more than 45 days to demonstrate subsequent compliance with the LSN requirements.

2. TSO

In its amended petition to intervene, TSO asserts that it “has substantially and timely complied with the provisions of Subpart J, including Section 2.1003 and Section 2.1009.”⁴⁶⁰ TSO also asserts that it submitted an adequate and timely LSN certification with its original petition on December 22, 2008, and a timely supplemental certification on February 28, 2009.⁴⁶¹

In its answer, however, DOE challenges TSO’s statement of LSN compliance on several grounds. First, DOE contends that TSO failed to provide an affidavit in support of its “bare assertion” of compliance.⁴⁶² As explained in Section II.B, *supra*, of this decision, however, section 2.1012(b)(1) contains no requirement that a petitioner provide an affidavit along with its petition. TSO’s failure to provide an affidavit does not preclude it from otherwise demonstrating compliance.

Next, DOE points to a number of “circumstances” that “call into question” TSO’s assertion of compliance.⁴⁶³ The first such “circumstance” is TSO’s admission in its February 24, 2009 reply that it “had not fully satisfied each of the NRC’s LSN requirements.”⁴⁶⁴ According to DOE, this admission suggests that TSO remained out of compliance on March 5, 2009, when it filed its amended petition. The second of DOE’s cited “circumstances” is TSO’s statement in its reply that “publicly available materials” are exempt from the LSN, even though no such exemption exists in section 2.1005.⁴⁶⁵ According to DOE, this statement demonstrates that TSO “has an improperly narrow view of the documentary material it must make available on the LSN.”⁴⁶⁶

Of course, neither of the above-cited circumstances proves that TSO failed to demonstrate substantial and timely compliance. However, given TSO’s failure to address those circumstances in a reply to DOE’s answer, we must treat DOE’s concerns as credible factual challenges to the sufficiency of TSO’s documentary production. As a consequence, we find that TSO has failed to demonstrate

⁴⁶⁰ TSO Amended Petition at 16. Because we grant TSO’s motion for leave to file an amended petition, *see* Section X.B, *infra*, we now consider the arguments for LSN compliance raised in TSO’s amended petition.

⁴⁶¹ *Id.* at 17.

⁴⁶² DOE Answer to TSO Amended Petition at 19-20.

⁴⁶³ *Id.* at 22.

⁴⁶⁴ *Id.* at 20 (citing TSO Reply at 17).

⁴⁶⁵ DOE Answer to TSO Amended Petition at 21.

⁴⁶⁶ *Id.*

substantial and timely compliance with the LSN requirements, and we decline to grant TSO, now known as JTS, party status at this time.

Again, section 2.1012(b)(2) allows a person denied admission to later request party status “upon a showing of subsequent compliance with the requirements of § 2.1003.” Thus, as explained above, JTS will be admitted as a party in the proceeding once it has complied with the requirements of section 2.1003. At such time as JTS can demonstrate compliance, JTS will be granted party status, “conditioned on accepting the status of the proceeding at the time of admission.”⁴⁶⁷ The Board suggests that JTS take no more than 45 days to demonstrate subsequent compliance with the LSN requirements.

D. NCA (CAB-02)

DOE faults NCA for failing to demonstrate substantial and timely compliance with the requirements of sections 2.1003 and 2.1009 and for failing to comply with all applicable orders of the PAPO Board as required by section 2.1012(c) at the time it filed its petition to intervene.⁴⁶⁸ DOE acknowledges that NCA submitted a “Certification of Electronically Available Documentary Material” with its petition to intervene, but it finds that certification to be “facially inadequate.”⁴⁶⁹ That certification states that all of NCA’s documentary material has been identified and made electronically available. But, in fact, NCA had posted no documents to the LSN as of that date.⁴⁷⁰ Therefore, DOE argues, NCA should not be granted party status in this proceeding.

The Board agrees with DOE that, under section 2.1012(b)(1), it may not admit a party to this proceeding absent a demonstration of substantial and timely compliance with the requirements of section 2.1003. Moreover, we agree that NCA has failed to demonstrate such compliance, given NCA’s admission in its reply that it “may possess some documents not in the record, and within the scope of the regulation.”⁴⁷¹ Thus, we are unable to grant NCA party status at this time. But, as with TIM and TSO, in accordance with section 2.1012(b)(2), NCA will be admitted as a party in the proceeding once it has complied with the requirements of section 2.1003. At such time as NCA can demonstrate compliance, NCA will be granted party status, “conditioned on accepting the status of the proceeding at

⁴⁶⁷ 10 C.F.R. § 2.1012(b)(2).

⁴⁶⁸ DOE NCA Answer at 3-4.

⁴⁶⁹ *Id.* at 5.

⁴⁷⁰ On May 5, 2009, NCA filed a new Certification of Availability of Native Community Action Council LSN Document Collection. After the time has expired for parties to respond, the certification will be addressed.

⁴⁷¹ NCA Reply at 8.

the time of admission.’⁴⁷² Again, the Board suggests that NCA take no more than 45 days to demonstrate subsequent compliance with the LSN requirements.

E. Inyo (CAB-03)

DOE, but not the NRC Staff, challenges Inyo’s substantial and timely compliance with the LSN requirements.⁴⁷³ As discussed in Section II.B, *supra*, the relevant standard is one of good faith.

In DOE’s answer, DOE discusses Inyo’s LSN production through December 18, 2008. DOE alleges that, as of that date, Inyo’s entire LSN collection consisted of merely 33 documents.⁴⁷⁴ DOE describes numerous categories of documents that, in DOE’s view, should exist and yet could not be located in Inyo County’s collection as of December 2008.⁴⁷⁵ DOE claims that ‘‘Inyo County’s LSN production is materially incomplete on its face.’’⁴⁷⁶

In reply, Inyo’s counsel represents that, beginning in January 2009, Inyo reviewed all relevant documents in its possession and in the possession of its contractors to ensure that all responsive documents were identified and placed on the LSN.⁴⁷⁷ Based on that review, counsel represents that, during February 2009, the County submitted additional documents to the LSN and that additional documents would be submitted until completion of the review in early March.⁴⁷⁸ Counsel for Inyo further represents that, in good faith compliance ‘‘all documents in support and in non-support of the County’s petition have been submitted to the LSN, or will be submitted to the LSN by early March 2009.’’⁴⁷⁹

Additionally, counsel explains that, with respect to Inyo’s contentions concerning volcanism, there were no significant documents to submit before contentions were filed. According to Inyo’s counsel, the County did not contract with the expert who supported those contentions until December 2007.⁴⁸⁰ According to counsel, the expert’s final report was first submitted to Inyo in January 2009, when it was immediately placed on the LSN (as were all 2008 monthly progress reports from the expert).⁴⁸¹

⁴⁷² 10 C.F.R. § 2.1012(b)(2).

⁴⁷³ DOE Inyo Answer at 4-9; NRC Staff Answer at 33-34.

⁴⁷⁴ DOE Inyo Answer at 6.

⁴⁷⁵ *See id.* at 5-9.

⁴⁷⁶ *Id.* at 5.

⁴⁷⁷ Inyo Reply at 5.

⁴⁷⁸ *Id.*

⁴⁷⁹ *Id.*

⁴⁸⁰ *Id.*

⁴⁸¹ *Id.*

The electronic hearing docket indicates that Inyo filed supplemental certifications of its LSN compliance on January 5, January 27, February 17, March 14, and March 25, 2009, and that, subsequent to DOE's review, the County's LSN collection has expanded eleven-fold to include at least 367 documents. Based on those facts, as well as the representations of Inyo's counsel, the Board finds that the County now has demonstrated good faith compliance. Should DOE conclude otherwise after further review of the Inyo's expanded LSN collection, it may file an appropriate motion.

VI. RULINGS ON CONTENTIONS

Each CAB analyzed the contentions for which it is responsible to determine whether they meet the six requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi), do not improperly challenge a rule or regulation of the Commission in violation of 10 C.F.R. § 2.335, and otherwise comply with the admissibility standards discussed in Section III, *supra*. As part of that process, the Boards have read, analyzed, and discussed the more than 12,000 pages of petitions, answers, and replies that were filed.

The Boards' decisions to admit a large proportion of proffered contentions is driven by our resolution of the overarching issues that formed the major portions of the DOE and NRC Staff opposition to the proffered contentions.⁴⁸² It also involved the Boards' determination that in many respects the opposition to contentions was based on an attempt to address the underlying factual merits, a step that comes at a later stage in the proceeding. Implicit in each Board's rulings on contentions, as well, is the rejection of the specific arguments raised in opposition to that contention.

The contentions proffered by petitioners that have demonstrated standing, and that satisfy the foregoing admissibility standards, are set forth in Attachment A, which identifies the rulings made by each of the three CABs. Each contention listed in Attachment A satisfies the six requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi), does not improperly challenge a rule or regulation of the Commission in violation of 10 C.F.R. § 2.335, and otherwise complies with the admissibility standards discussed above. The contentions listed in Attachment A are *admissible*.

The contentions proffered by petitioners that have demonstrated standing, but that do not satisfy the foregoing admissibility standards, are set forth in Attachment B, which identifies the rulings made by each of the three CABs. Each contention listed in Attachment B fails to satisfy one or more admissibility requirements. The principal deficiency or deficiencies the applicable CAB found

⁴⁸² See Section III, *supra*.

in each such contention are identified in Sections IX-XI, *infra*. The contentions listed in Attachment B are *inadmissible*.

The CABs, whose members collectively possess more than 80 years' experience as NRC judges, recognize that their decisions result in admitting a higher percentage of contentions than has often been the case in other proceedings. In part, this might stem from: (1) the APAPO Board Order,⁴⁸³ which instructed petitioners to organize their contentions so as to address directly the Commission's specific requirements; (2) the significant resources that many government entities have obviously devoted to preparing their petitions; and (3) the experience and qualifications of most petitioners' counsel and numerous supporting experts.

The Boards, however, have done nothing more nor less than admit contentions that comply with the Commission's pleading requirements and not admit the relatively few that fail to comply. The purpose of those requirements is explained in *Oconee*⁴⁸⁴ — a case that DOE cites more than 400 times in its answers to the petitioners' filings.

In an earlier era, as the Commission explained in *Oconee*, “boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation.”⁴⁸⁵ 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.”⁴⁸⁶ In revising its contention admissibility requirements, the Commission sought to preclude a contention from being admitted where an intervenor has “no facts” to support its positions, but rather hopes to use discovery or cross-examination as a “fishing expedition.”⁴⁸⁷

The Commission therefore amended its rules to require that contentions have “at least some minimal factual and legal foundation in support.”⁴⁸⁸ That is all. That is what DOE agreed at oral argument is the standard.⁴⁸⁹ As the Commission emphasized in *Oconee*, the contention requirements were never intended to be turned into a “fortress to deny intervention.”⁴⁹⁰

⁴⁸³ *U.S. Dep't. of Energy*, LBP-08-10, 67 NRC 450.

⁴⁸⁴ CLI-99-11, 49 NRC 328.

⁴⁸⁵ *Id.* at 334.

⁴⁸⁶ *Id.*

⁴⁸⁷ *Id.* at 335 (citing 54 Fed. Reg. at 33,171).

⁴⁸⁸ *Oconee*, CLI-99-11, 49 NRC at 334.

⁴⁸⁹ Tr. at 260.

⁴⁹⁰ *Oconee*, CLI-99-11, 49 NRC at 335 (citing *Peach Bottom*, ALAB-216, 8 AEC at 21). On April 10, 2009, in response to a request made during oral argument, DOE submitted five examples of contentions from other proceedings that DOE contends “were better drafted than those of the state of Nevada.” Department of Energy Response to Request from the March 31, 2009 Oral Argument (Apr. 10, 2009) at 1. The Boards do not find DOE's examples persuasive. Tellingly, however, admission

(Continued)

The Boards, of course, express no view as to which, if any, admitted contentions might ultimately prove meritorious. The Boards determine only that the admitted contentions satisfy the Commission's pleading requirements.

This complex proceeding will require active case management. As discussed, subsequent briefing on legal issue contentions that will likely affect the outcome of related factual contentions will be required. Because the APAPO Board required petitioners to proffer narrow, single-issue contentions,⁴⁹¹ many contentions appear closely related to other contentions and might ultimately be fit candidates for consolidation or other disposition on a joint basis. It is apparent, for example, that at least twenty of the contentions proffered by petitioners are nearly identical and at least twenty-two are sufficiently similar to warrant grouping together for hearing.⁴⁹² Furthermore, in its petition, Nevada grouped its single-issue contentions by subject categories. Consideration will be given to combining many of its contentions, as well as those from other petitioners, into these or similar topic areas. Clearly, close control of discovery will also be necessary, as the Commission's regulations contemplate.⁴⁹³

The Commission has delegated authority adequate to ensure the careful management that the HLW proceeding requires, and the Boards are confident that it will be exercised appropriately. The proper and efficient conduct of this proceeding will depend on such management, and not on prematurely adjudicating the merits of contentions that have been adequately pled.

of even DOE's allegedly superior contentions was opposed by the applicant in four of the five cases — suggesting, perhaps, that applicants all too frequently conflate the adequacy of pleadings with challenges to the merits.

⁴⁹¹ *U.S. Dep't of Energy*, LBP-08-10, 67 NRC at 454.

⁴⁹² For example, the following contentions appear to be identical: INY-SAFETY-003/CLK-SAFETY-006/NEV-SAFETY-153, CLK-SAFETY-003 through -011 with NEV-SAFETY-150 through -158, INY-NEPA-001/CAL-NEPA-021, and INY-NEPA-003 through -005 with CAL-NEPA-022 through CAL-NEPA-024. In addition, CLK-SAFETY-003/CLK-SAFETY-005/CLK-SAFETY-009/CLK-SAFETY-011 / NEV-SAFETY-150 / NEV-SAFETY-152 / NEV-SAFETY-156 / NEV-SAFETY-158 are similar in their assessment and modeling of upper crust impacts on volcanism. CLK-SAFETY-004/CLK-SAFETY-008/NEV-SAFETY-151/NEV-SAFETY-155 deal with the period of time to assess volcanism and are sufficiently similar to warrant grouping. Also, INY-NEPA-005/CAL-NEPA-023/CAL-NEPA-024/NYE-NEPA-001 all deal with potential radiological impacts to saturated groundwater resources, while TIM-NEPA-01/NEV-NEPA-21/INY-NEPA-004/INY-NEPA-005/CAL-NEPA-023/CAL-NEPA-024/NYE-NEPA-001 relate to potential impacts from the discharge of this contaminated groundwater.

⁴⁹³ 10 C.F.R. § 2.1021(a)(5).

VII. RULINGS ON PETITIONS

A. CAB-01

As set forth above, Nevada, Clark, Nye, and White Pine each have at least one admissible contention meeting the requirements of 10 C.F.R. § 2.309(f), have standing in accordance with 10 C.F.R. § 2.309(d) or are exempt from having to establish standing, and have complied with the LSN requirements of 10 C.F.R. §§ 2.1003, 2.1009, and 2.1012. Therefore, in accordance with 10 C.F.R. § 2.309(a), the Board grants the intervention petitions of Nevada, Clark, Nye, and White Pine and admits them as parties to this proceeding. Because Caliente has failed to establish its standing, the Board denies its intervention petition.

B. CAB-02

As set forth above, California and Nevada 4 Counties each have at least one admissible contention meeting the requirements of 10 C.F.R. § 2.309(f), have standing in accordance with 10 C.F.R. § 2.309(d) or are exempt from having to establish standing, and have complied with the LSN requirements of 10 C.F.R. §§ 2.1003, 2.1009, and 2.1012. Therefore, in accordance with 10 C.F.R. § 2.309(a), the Board grants the intervention petitions of California and Nevada 4 Counties and admits them as parties to this proceeding.

NCA and JTS likewise each have at least one admissible contention and have established standing, but have not established LSN compliance. At such time as they can demonstrate LSN compliance, each will be granted party status.

C. CAB-03

As set forth above, Inyo and NEI each have at least one admissible contention meeting the requirements of 10 C.F.R. § 2.309(f), have standing in accordance with 10 C.F.R. § 2.309(d) or are exempt from having to establish standing, and have complied with the LSN requirements of 10 C.F.R. §§ 2.1003, 2.1009, and 2.1012. Therefore, in accordance with 10 C.F.R. § 2.309(a), the Board grants the intervention petitions of Inyo and NEI and admits them as parties to this proceeding.

VIII. RULINGS ON PROCEDURAL MATTERS (CAB-01)

A. Interested Governmental Bodies

The unopposed requests from Eureka and Lincoln to participate as interested governmental bodies, pursuant to 10 C.F.R. § 2.315(c), are granted.

B. Eureka Motion for Leave to File a Reply

On February 24, 2009, Eureka filed a motion for leave to file a reply, with its reply attached, to the answers filed by DOE and the NRC Staff relating to categories of issues and potential contentions on which Eureka intends to participate.⁴⁹⁴ Eureka previously filed an unopposed request to participate as an interested governmental participant under 10 C.F.R. § 2.315(c) on December 22, 2008.⁴⁹⁵ Eureka does not identify the contentions that it seeks to address in its motion⁴⁹⁶ — and, indeed, does not identify the precise answers filed by DOE and the NRC Staff to which it seeks to reply — but merely asserts that it desires to reply to DOE and the NRC Staff with respect to “some of their general arguments” in opposition to the admission of several general categories of contentions.⁴⁹⁷

The NRC Rules of Practice prohibit Eureka, asking to participate as an interested governmental participant in accordance with 10 C.F.R. § 2.315(c), from filing a reply to DOE’s and the NRC Staff’s answers. The right to file answers and associated replies with respect to petitions to intervene is governed by 10 C.F.R. § 2.309(h), which provides, in pertinent part that:

(2) Except in a proceeding under 10 CFR 52.103, the *requestor/petitioner* may file a reply to any answer. The reply must be filed within 7 days after service of that answer.

(3) *No other written answers or replies will be entertained.*

(emphasis added). Further, while interested governmental participants are afforded many rights and responsibilities with respect to participation in a proceeding, they are limited to participation on admitted contentions.⁴⁹⁸ Thus, all of the rights afforded to interested governmental participants are to apply after contentions have been admitted. Nothing in the rules provides for interested governmental participants to file replies and the plain text of 10 C.F.R. § 2.309(h)(2) and (3) forbids the action requested by Eureka. Accordingly its motion is denied.

⁴⁹⁴ Eureka County’s Motion for Leave to File Reply to Oppositions by the U.S. Department of Energy and the NRC Staff to Admission of Contentions on which Eureka County Intends to Participate (Feb. 24, 2009) [Eureka Motion].

⁴⁹⁵ Eureka Request.

⁴⁹⁶ Eureka County’s Reply to Oppositions by the U.S. Department of Energy and the NRC Staff to Admission of Contentions on which Eureka County Intends to Participate (Feb. 24, 2009) at 2 [Eureka Reply]. Eureka names NEV-NEPA-003, NEV-NEPA-005, and NEV-NEPA-006 as examples of contentions for which it argues the NRC Staff applies an overly high standard for contention admissibility. *See id.* at 7 n.1. Eureka does not claim, however, that it will be participating on those specific contentions.

⁴⁹⁷ Eureka Motion at 2.

⁴⁹⁸ 10 C.F.R. § 2.315(c).

C. Nevada’s Motion to Amend Petition to Intervene as a Full Party

On January 16, 2009, Nevada filed a motion to amend its petition.⁴⁹⁹ In its motion, Nevada seeks leave to amend NEV-SAFETY-003, originally filed in its petition.⁵⁰⁰ Nevada bases its motion on the availability of a document containing “close-out information regarding [DOE’s] Condition Report CR-6330 at LSN# DEN001606280.”⁵⁰¹ Nevada claims that this document relates to the implementation of DOE’s Augmented Quality Assurance Program, which is part of the discussion in Nevada’s original contention, NEV-SAFETY-003. The NRC Staff and DOE filed answers opposing Nevada’s motion.⁵⁰²

As set forth in Attachment A, NEV-SAFETY-003 is admitted in this proceeding. The Board notes that, at most, the information on which the motion to amend is based is essentially cumulative of that supplied in the contention. Although Nevada claims that “the information upon which the amendment to its contention is based is materially different from information previously available,”⁵⁰³ a comparison of the content of NEV-SAFETY-003, as filed, with the document referred to in the motion shows that the information upon which the amended contention is based is not materially different from the information that is already included in NEV-SAFETY-003. Therefore, Nevada’s motion to amend its contention is denied.

IX. DISCUSSION (CAB-01)

The Board provides the following additional discussion concerning the admission of certain contentions, the designation and admission of certain legal issue contentions, and a brief explanation for finding four contentions inadmissible.

A. Certain Admitted Contentions

The contentions that CAB-01 finds admissible are identified in Attachment A. Two admitted contentions — NEV-SAFETY-001 and NEV-SAFETY-002 discussed in Sections IX.A.1 and .2, below — present issues that are notably different from Nevada’s other safety contentions. Therefore, as is more fully explained in Section IX.A.3, these contentions may pose unique institutional

⁴⁹⁹ Nevada Motion to Amend.

⁵⁰⁰ Nevada Petition at 45-72.

⁵⁰¹ Nevada Motion to Amend at 1-2.

⁵⁰² See Corrected NRC Staff Answer to the State of Nevada’s Motion to Amend Petition to Intervene as a Full Party (Jan. 26, 2009); U.S. Department of Energy’s Answer Opposing State of Nevada’s Motion to Amend Petition to Intervene as a Full Party (Feb. 10, 2009).

⁵⁰³ Nevada Motion to Amend at 1.

concerns of special interest to the Commission. Legal issue contentions admitted to this proceeding are discussed in Section IX.A.4, below.

I. NEV-SAFETY-001

a. Nevada, DOE, and the NRC Staff Arguments

Nevada's first safety contention, NEV-SAFETY-001-DOE Integrity, alleges that "[t]he [Application] cannot be granted because DOE lacks the requisite integrity to be an NRC licensee."⁵⁰⁴ In its brief explanation of the basis for the contention, Nevada states that

DOE's continuing and past actions related to Yucca Mountain reveal a pattern of material false statements and omissions and an elevation of schedule considerations over safety and compliance. Taken together, these actions indicate that DOE has a defective safety culture and lack of integrity that are inconsistent with being a responsible NRC licensee.⁵⁰⁵

Citing two cases where the character or integrity of an applicant was at issue, Nevada asserts that DOE's integrity is a proper consideration in a licensing proceeding, which must be addressed under 10 C.F.R. § 63.31(a)(1) and (2) in order for the NRC to find that there is a reasonable assurance of safety.⁵⁰⁶

As support for its contention, Nevada describes instances "as recent as the tendering of the [Application]" "indicating that DOE abetted or tolerated, if not established, a culture in which meeting artificial schedules was more important than safety or compliance, and withheld material safety information from the NRC, with apparent willful intent."⁵⁰⁷ For example, Nevada attaches documents that purportedly indicate DOE: (1) "established an artificial deadline of June 30, 2008, for submission of the application" and let it be known that schedule was elevated over a technically defensible and credible license application; (2) continued with the tunneling of the exploratory study facility at Yucca Mountain in order to meet a schedule, despite reports of workers' exposure to toxic silica; and (3) omitted important safety information from the Application by excluding a report by the Oak Ridge Institute for Science and Education that criticized DOE's infiltration model.⁵⁰⁸ In all, Nevada lists no fewer than forty documents to support its contention.

⁵⁰⁴ Nevada Petition at 16.

⁵⁰⁵ *Id.*

⁵⁰⁶ *Id.* (citing *Georgia Tech*, CLI-95-12, 42 NRC 111; *Georgia Power Co. (Vogle Electric Generating Plant, Units 1 and 2)*, CLI-93-16, 38 NRC 25 (1993)).

⁵⁰⁷ Nevada Petition at 18.

⁵⁰⁸ *Id.* at 17-26.

In its answer, DOE argues that this contention is inadmissible because it: (1) is outside the scope of the proceeding (and therefore is not material to the findings the NRC must make in the proceeding); (2) is not adequately supported; and (3) does not raise a genuine dispute on a material issue of fact or law because it lacks adequate support.⁵⁰⁹ In asserting that the contention is outside the scope of the proceeding, DOE claims that section 182(a) of the AEA, which authorizes the NRC to consider the character of the applicant in a licensing proceeding, does not apply to DOE.⁵¹⁰ DOE also points out that Congress designated DOE as the Applicant in the NWPA, making DOE the only appropriate applicant for this licensing proceeding.⁵¹¹ Accordingly, DOE argues, the contention constitutes an impermissible challenge to the NWPA.⁵¹² The NRC Staff, for the most part, makes similar arguments that this contention is outside of the scope of the proceeding — the only ground on which the NRC Staff asserts that this contention is inadmissible.⁵¹³ For these same reasons, DOE also asserts that the issue raised in NEV-SAFETY-001 is not material to the findings the NRC must make regarding DOE’s Application.⁵¹⁴

Additionally, DOE argues that Nevada has not provided adequate facts or expert opinion in support of NEV-SAFETY-001.⁵¹⁵ Citing NRC case law, DOE claims that alleged historical deficiencies may not be used as the foundation for a contention.⁵¹⁶ DOE also asserts that allegations of multiple violations alone are insufficient to support a contention, stating that an ongoing pattern must be shown, and that any consideration of the ongoing pattern must include consideration of an applicant’s corrective actions as evidence of its good character.⁵¹⁷ Moreover, DOE asserts that, because it is a federal agency, “a ‘presumption of regularity attaches to [its] actions,’ ”⁵¹⁸ and therefore Nevada has an “elevated burden,” beyond what the case law imposes, to support its contention with “clear evidence.”⁵¹⁹ DOE concludes that Nevada has not made the showing that NRC case law and

⁵⁰⁹ DOE Nevada Answer at 74-75.

⁵¹⁰ See AEA § 182(a), 42 U.S.C. § 2232(a).

⁵¹¹ DOE Nevada Answer at 75.

⁵¹² *Id.* at 78-79.

⁵¹³ See NRC Staff Answer at 141-42 (asserting that the cases Nevada cites are distinguishable because they do not involve the NWPA or the HLW repository, and characterizing Nevada’s contention as a challenge to Congress’s designation of DOE as the licensee).

⁵¹⁴ DOE Nevada Answer at 79.

⁵¹⁵ *Id.* at 79-95. In its answer, DOE combines the factual support argument with its argument that Nevada has not raised a genuine issue of material fact or law. For purposes of clarity, these two contention admissibility factors will be discussed separately.

⁵¹⁶ *Id.* at 80-81.

⁵¹⁷ *Id.* at 81-82.

⁵¹⁸ *Id.* at 82 (quoting *U.S. Postal Service v. Gregory*, 534 U.S. 1, 10 (2001)).

⁵¹⁹ DOE Nevada Answer at 82-83.

its status as a federal agency require of it to support NEV-SAFETY-001.⁵²⁰ This is tied to DOE's final argument that, because of a lack of sufficient support for NEV-SAFETY-001, Nevada has failed to place DOE's character and integrity in genuine dispute.⁵²¹

With regard to DOE's scope of proceeding and materiality claims, Nevada responds that DOE takes out of context the snippet of legislative history of the AEA purportedly supporting its argument that the character requirement of section 182(a) does not apply to DOE.⁵²² Nevada points out that section 11 of the AEA defines "person" to include "[g]overnment agenc[ies] other than the Commission," as well as state and foreign governments,⁵²³ and other sections in the AEA generally require all "persons" to be licensed when conducting nuclear activities. Thus, Nevada argues, DOE's position is without merit and the character requirement of AEA § 182(a) applies to DOE as a license applicant notwithstanding the fact that it is a government agency.⁵²⁴ In addressing DOE's argument that the designation of DOE as the Applicant in the NWPA precludes any consideration of DOE's character under the AEA, Nevada points out that section 114(f)(5) of the NWPA explicitly states that "[n]othing in this chapter shall be construed to amend or otherwise detract from the licensing requirements of the [NRC]."⁵²⁵ Thus, Nevada argues that, in enacting the NWPA, "Congress specifically preserved NRC's authority under [AEA § 182(a)] to impose such character and safety culture requirements on DOE,"⁵²⁶ and "[d]esignating DOE as the [A]pplicant is manifestly not the same as designating DOE as a fully qualified licensee."⁵²⁷ Because the NRC Staff's argument regarding the scope of the proceeding is similar to DOE's, Nevada makes the same arguments in its reply to the NRC Staff's answer.⁵²⁸

With respect to DOE's combined arguments that NEV-SAFETY-001 is not supported by sufficient facts or expert opinion and thus fails to raise a genuine dispute on an issue of material fact or law, Nevada notes that DOE appears to have misapprehended what is alleged in NEV-SAFETY-001, stating that it "focuses specifically on one aspect of character that is of special relevance to NRC — that aspect of character that embodies organizational safety culture."⁵²⁹ Contrary to

⁵²⁰ *Id.* at 84-94.

⁵²¹ *Id.* at 84.

⁵²² Nevada DOE Reply at 73.

⁵²³ AEA § 11(s), 42 U.S.C. § 2014(s).

⁵²⁴ Nevada DOE Reply at 73.

⁵²⁵ *Id.* at 75.

⁵²⁶ *Id.*; *see also* Nevada NRC Reply at 25 (responding similarly to the NRC Staff's arguments).

⁵²⁷ Nevada DOE Reply at 75.

⁵²⁸ *See* Nevada NRC Reply at 25.

⁵²⁹ Nevada DOE Reply at 76.

DOE's interpretation of the case law that historical information cannot be used to support a contention regarding the applicant's character, Nevada asserts that to plead an ongoing problem reference to historical information logically must be included.⁵³⁰ In addition, although it disputes DOE's assertion that alleging multiple violations is insufficient to support a character-based contention, Nevada does not disagree with DOE's interpretation of the case law to the extent that it is read as requiring that an ongoing pattern be presented and that pattern be tied to the licensing action in dispute.⁵³¹

Nevada also disputes DOE's argument that Nevada faces an elevated burden for supporting its contention due to DOE's status as a government agency, stating that "the cases [DOE] cites do not establish criteria for admission of contentions."⁵³² Furthermore, Nevada insists, if the NRC were to apply a presumption of regularity to DOE in reviewing its Application, this would "eviscerate the NRC review process contrary to section 114(f)(5) of the NWPA," in that the NWPA does not diminish the NRC's authority to require applicants to show they meet specific licensing requirements.⁵³³ Finally, Nevada asserts that DOE's remaining arguments regarding the support provided for Nevada's contention address the merits of NEV-SAFETY-001, which is improper at the contention admissibility stage.⁵³⁴ According to Nevada, it has satisfied the requirements for supporting this contention, and "the contention, on its face, raises a material dispute with DOE."⁵³⁵

b. Board Analysis

The Board finds that Nevada has met the contention admissibility factors for NEV-SAFETY-001, and, as noted in Attachment A, admits the contention. Contrary to DOE's characterization, NEV-SAFETY-001 will not "redirect this proceeding" into a "wide-ranging inquiry into the general character and integrity of a department of the United States government."⁵³⁶ As presented, NEV-SAFETY-001 is a narrowly drawn contention in which Nevada alleges a pattern of conduct on the part of DOE — largely with respect to Yucca Mountain — that raises the issue of whether DOE has a deficient organizational safety culture where schedule considerations are elevated over safety and compliance

⁵³⁰ *Id.* at 77.

⁵³¹ *Id.*

⁵³² *Id.* at 78.

⁵³³ *Id.* at 78-79.

⁵³⁴ *Id.* at 79-80.

⁵³⁵ *Id.* at 76-77.

⁵³⁶ DOE Nevada Answer at 75.

with the regulations.⁵³⁷ Nevada further alleges that this conduct, which includes alleged actions that took place in this very proceeding, is directly relevant to whether the NRC can find, as it is required to do in order to authorize construction of the HLW repository, that there is reasonable assurance of safety under 10 C.F.R. § 63.31.⁵³⁸

With regard to the specific admissibility requirements of 10 C.F.R. § 2.309(f)(1), neither DOE nor the NRC Staff disputes that NEV-SAFETY-001 satisfies the admissibility criteria of 10 C.F.R. § 2.309(f)(1)(i) and (ii).⁵³⁹ The Board finds that Nevada has met these two criteria with its statement of the issue raised and its brief explanation of the basis for the contention.

NEV-SAFETY-001 is also within the scope of this proceeding, as required under 10 C.F.R. § 2.309(f)(1)(iii). The scope of the proceeding is generally established by the Commission in its initial hearing notice and any order referring the proceeding to a licensing board.⁵⁴⁰ Here, the Notice of Hearing states that “[t]he hearing will consider the application for construction authorization filed by DOE pursuant to Section 114 of the [NWPA], 42 U.S.C. 10134, and pursuant to 10 C.F.R. Parts 2 and 63.”⁵⁴¹ The notice further states:

The matters of fact and law to be considered are whether the application satisfies the applicable safety, security, and technical standards of the AEA and NWPA and the NRC’s standards in 10 C.F.R. Part 63 for a construction authorization for a high-level waste geologic repository, and also whether the applicable requirements of the [NEPA] and NRC’s NEPA regulations, 10 C.F.R. Part 51, have been met.⁵⁴²

As discussed above, in its petition and reply Nevada cites NRC case law, 10 C.F.R. Part 63, the AEA, and the NWPA for its assertion that NEV-SAFETY-001 is within the scope of the proceeding. Nevada has explained how these authorities — which (with the exception of NRC case law) are listed in the Notice of Hearing as the basis for the NRC’s review of DOE’s Application — relate to the issue it raises; thus Nevada satisfies 10 C.F.R. § 2.309(f)(1)(iii) by demonstrating that the issue raised in NEV-SAFETY-001 is within the scope of the proceeding.

As DOE and the NRC Staff would have it, however, the uniqueness of this proceeding, with DOE as a federal agency Applicant, changes the scope inquiry.

⁵³⁷ Nevada Petition at 16; Nevada DOE Reply at 76.

⁵³⁸ Nevada Petition at 16.

⁵³⁹ See DOE Nevada Answer at 75; NRC Staff Answer at 141.

⁵⁴⁰ *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985).

⁵⁴¹ 73 Fed. Reg. at 63,029.

⁵⁴² *Id.*

A review of the applicable law, however, shows that, as stated above, NEV-SAFETY-001 is within the scope of this proceeding.

First, AEA § 182(a) applies to DOE,⁵⁴³ and nothing in the NWPA detracts from its application to this proceeding, Congress’s designation of DOE as the Applicant notwithstanding. Section 182(a) provides the general information that must be included in any application for a license issued under the AEA. It states:

Each application for a license hereunder shall be in writing and shall specifically state such information as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant, the *character of the applicant*, and citizenship of the applicant, or *any other qualifications of the applicant* as the Commission may deem appropriate for the license.⁵⁴⁴

In support of its assertion that section 182(a) does not apply to DOE, DOE cites a few references to the word “private” in the legislative history, insisting that section 182(a) applies only to private applicants. These references, however, appear in the context of a general discussion of the purpose of the AEA, which recognized that the prior law placed prohibitions on “private participation in atomic energy”⁵⁴⁵ and explained that this was being changed to allow the Commission (then the Atomic Energy Commission) to license private industry and private persons.⁵⁴⁶ Although this discussion refers to licensing the private sector, it says nothing of this being the only reason for the license criteria in section 182(a).

Furthermore, “person” is defined under section 11(s) of the AEA to include not only private entities, but also “any . . . Government agency other than the Commission,”⁵⁴⁷ and a “person,” as the term is used throughout the AEA, is required to be licensed in order to conduct nuclear activities.⁵⁴⁸ Thus, in terms of the Commission’s treatment of private entities and government actors under the AEA, there is no difference.

⁵⁴³ See discussion *infra* in this Section (providing further explication of the application of AEA section 182(a) through Commission case law).

⁵⁴⁴ AEA § 182(a), 42 U.S.C. § 2232(a) (emphasis added).

⁵⁴⁵ S. Rep. No. 1699-83, at 9 (1954), *reprinted in* 1954 U.S.C.C.A.N. 3456, 3464.

⁵⁴⁶ *Id.*

⁵⁴⁷ AEA § 11(s), 42 U.S.C. § 2014(s).

⁵⁴⁸ See, e.g., AEA § 101, 42 U.S.C. § 2131:

It shall be unlawful, except as provided in section 91, for any person within the United States to transfer or receive in interstate commerce, manufacture, produce, transfer, acquire, possess, use, import, or export any utilization or production facility except under and in accordance with a license issued by the Commission pursuant to section 103 or section 104.

DOE's reference to the word "character" in the legislative history to support its assertion that a review of an applicant's character under section 182(a) is linked solely to a concern over access to restricted data is similarly taken out of context. Although this reference in the legislative history explains that access to restricted data requires an investigation of an individual's character, it falls within a discussion of the "information control provisions" of the law. It is not linked to the general license criteria of section 182(a).⁵⁴⁹

Additionally, and contrary to the argument made by DOE and the NRC Staff, Congress's designation of DOE as the Applicant under the NWPA does not alter the fact that section 182(a) applies to DOE. When Congress designated DOE as the Applicant for the HLW repository, it did not abrogate the Commission's review of the Application to be submitted by DOE. To the contrary, in NWPA § 114(d) Congress directed the NRC to "consider an application for a construction authorization for all or part of a repository in accordance with the laws applicable to such applications," and set forth a schedule for the "final decision *approving* or *disapproving* the issuance of a construction authorization."⁵⁵⁰ Congress thus envisioned a situation where, after the Commission's review, the Commission could find that DOE, although the designated *Applicant*, would not be the designated *licensee*.

DOE and the NRC Staff erroneously conflate applicants with licensees in arguing that AEA § 182(a) does not apply in this proceeding. In questioning DOE's safety culture, Nevada is not challenging DOE's designation as the Applicant. Nevada plainly alleges that "DOE has a defective safety culture and lack of integrity that are inconsistent with being a responsible NRC *licensee*."⁵⁵¹ In other words, Nevada is asserting that, if the NRC finds that DOE's allegedly defective safety culture precludes a finding of reasonable assurance and reasonable expectation of safety under 10 C.F.R. § 63.31(a)(1) and (2), then the construction authorization cannot be granted — not that it should be granted with another entity substituted as the licensee.

Furthermore, the NWPA explicitly provides that it does not diminish any part of the Commission's authority to review license applications and issue licenses under the AEA. Section 114(f)(5) of the NWPA states: "[n]othing in this Act shall be construed to amend or otherwise detract from the licensing requirements of the Nuclear Regulatory Commission established in title II of the Energy Reorganization Act of 1974"⁵⁵² — for example, the licensing requirements promulgated pursuant to the authority granted to the Commission under the

⁵⁴⁹ See S. Rep. No. 1699-83, at 7.

⁵⁵⁰ NWPA § 114(d), 42 U.S.C. § 10134(d) (emphasis added).

⁵⁵¹ Nevada Petition at 16 (emphasis added).

⁵⁵² NWPA § 114(f)(5), 42 U.S.C. § 10134(f)(5). Title II of the Energy Reorganization Act of 1974 established the NRC.

AEA.⁵⁵³ Significantly, the listing of the statutory authorities appearing at the beginning of 10 C.F.R. Part 63, which outlines the licensing requirements that DOE must meet for its Application to be granted, cites AEA § 182.⁵⁵⁴ As Nevada points out, “adequate character and safety culture are ‘licensing requirements of the [NRC],’ imposed pursuant to section 182[(a)] of the AEA.”⁵⁵⁵ Although Congress designated DOE as the Applicant, that designation can in no way constrain the Commission’s authority to review DOE’s Application. Any other interpretation of the AEA would be in direct contravention of Congress’s mandate that the NRC, an independent regulatory agency whose duty it is to ensure the public health and safety, perform a full review of the Application.

The plain language of section 114(f)(5) of the NWPA also clearly contradicts DOE’s final argument that section 182(a) does not apply to this proceeding because section 121(b) of the NWPA “provides more specific requirements” that supersede the “general provisions” of AEA section 182(a).⁵⁵⁶ According to DOE, section 121(b), in authorizing the Commission to “promulgate technical requirements and criteria that it will apply” in its review of the Application,⁵⁵⁷ omits reference to a review of the applicant’s character.⁵⁵⁸ DOE therefore argues that the proceeding is limited “to an inquiry into the technical adequacy of the application, not the *general* character or integrity of the applicant.”⁵⁵⁹ This argument, however, ignores the plain language of NWPA § 114(f)(5) stating that nothing in the NWPA detracts from the Commission’s other applicable licensing requirements, which would include requirements pertaining to the qualifications of the applicant under the AEA.

Second, although the Commission has not promulgated a rule or regulation requiring an applicant to include information in its application regarding its character pursuant to AEA § 182(a), NRC case law makes clear that an applicant’s character is appropriate for consideration in a licensing proceeding. As the Commission has stated:

Commission precedent establishes that lack of either technical competence or character qualifications on the part of licensee or applicant is sufficient grounds for the revocation of a license or the denial of a license application. The Commission has looked to whether a licensee’s management displays “the climate, resources,

⁵⁵³ See, e.g., 10 C.F.R. Part 63 (the AEA is included among the authorities cited for promulgation of Part 63).

⁵⁵⁴ See *id.*

⁵⁵⁵ Nevada DOE Reply at 75.

⁵⁵⁶ DOE Nevada Answer at 77.

⁵⁵⁷ NWPA § 121(b), 42 U.S.C. § 10141(b).

⁵⁵⁸ DOE Nevada Answer at 77 (citing NWPA § 121(b), 42 U.S.C. § 10141(b)).

⁵⁵⁹ DOE Nevada Answer at 77.

attitude, and leadership that the Commission expects of a licensee.” In making determinations about “integrity” or “character,” the Commission may consider evidence bearing upon the licensee’s “candor, truthfulness, willingness to abide by regulatory requirements, and acceptance of responsibility to protect public health and safety.” The past performance of management or high-ranking officers, as reflected in deliberate violations of regulations or untruthful reports to the Commission, may indicate whether a licensee will comply with agency standards, and will candidly respond to NRC inquiries.⁵⁶⁰

In keeping with this approach, as long as the petitioner alleges, with sufficient support, that the applicant’s bad character or lack of integrity has direct and obvious relevance to the licensing action at issue in the proceeding, a character-based contention is admissible.⁵⁶¹

It is true, as the NRC Staff points out, that none of these cases “involve[s] repository licensing” or “addresses the unique requirements of the NWPA.”⁵⁶² The AEA defines a person to include both private and government entities. Thus, the Board is not at liberty to ignore these clearly applicable precedents merely because there is a federal applicant involved. Accordingly, the Board concludes that NEV-SAFETY-001 is within the scope of this proceeding.

The Board also finds, for the reasons set forth above, that Nevada has met the requirements of 10 C.F.R. § 2.309(f)(1)(iv). Nevada has shown that its character allegations are material to the safety findings that the NRC must make under 10 C.F.R. § 63.31(a)(1) and (2) to support a decision on the Application.⁵⁶³

Further, Nevada has provided factual support for its contention sufficient for it to be admitted in this proceeding as required by 10 C.F.R. § 2.309(f)(1)(v). Section 2.309(f)(1)(v) requires “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.”⁵⁶⁴ Additionally, under NRC case law, contentions that raise character and integrity issues must show an ongoing pattern of problems associated with the applicant’s character that have a direct and obvious relationship to the licensing

⁵⁶⁰ *Vogtle*, CLI-93-16, 38 NRC at 31 (internal citations omitted).

⁵⁶¹ See *Millstone*, CLI-01-24, 54 NRC at 365-66; *Georgia Tech*, CLI-95-12, 42 NRC at 120-21; *Vogtle*, CLI-93-16, 38 NRC at 36, 39-42.

⁵⁶² NRC Staff Answer at 142.

⁵⁶³ See *Vogtle*, CLI-93-16, 38 NRC at 31 (“The integrity or character of a licensee’s [or applicant’s] management personnel bears on the Commission’s ability to find reasonable assurance that a facility can be safely operated”).

⁵⁶⁴ 10 C.F.R. § 2.309(f)(1)(v).

action at issue.⁵⁶⁵ As the Commission has explained, the allegations in these types of contentions “must be of more than historical interest.”⁵⁶⁶

DOE would have it that, because it is a government agency, a presumption of regularity applies to its actions.⁵⁶⁷ Thus, DOE argues, Nevada must support its character-based contentions with “clear evidence.”⁵⁶⁸ As discussed above, however, because DOE is a “person” under the AEA like all other license applicants, it does not automatically receive special status by virtue of being a federal agency in proceedings before the NRC. Moreover, the NRC generally presumes that licensees will comply with its regulations;⁵⁶⁹ this is likely why the Commission placed “strict limits” on contentions regarding character and integrity issues such that they must present an ongoing pattern that has a direct and obvious relationship to the licensing action at issue in order to be admitted.⁵⁷⁰ Thus, there is no merit to DOE’s argument that, when DOE is before the Commission, a heightened standard applies for the admissibility of integrity contentions beyond what is imposed by 10 C.F.R. § 2.309(f)(1) and Commission case law — e.g., a showing of “clear evidence.”

Nevada has provided specific examples of conduct (and has provided documents in support of these examples) on the part of DOE management and employees that occurred over a period of years, continuing to the present, which includes conduct in this licensing proceeding.⁵⁷¹ Nevada alleges that these examples show that DOE elevates schedule over safety concerns and compliance with NRC regulations.⁵⁷² DOE accuses Nevada of cherry-picking documents and groups of documents and reading them out of context. Its challenges to the documents and examples of DOE’s conduct, however, improperly focus on the merits of Nevada’s allegations.⁵⁷³ For example, although it might later prove true, as DOE insists, that the author of one of the e-mails Nevada cites was not being literal in his statements,⁵⁷⁴ this is properly investigated after the contention admissibility phase when the merits inquiry takes place. And while the case

⁵⁶⁵ See *Millstone*, CLI-01-24, 54 NRC at 365-66; *Georgia Tech*, CLI-95-12, 42 NRC at 120-21; *Vogtle*, CLI-93-16, 38 NRC at 36, 39-42.

⁵⁶⁶ *Georgia Tech*, CLI-95-12, 42 NRC at 120.

⁵⁶⁷ DOE Nevada Answer at 82-83.

⁵⁶⁸ *Id.* at 83.

⁵⁶⁹ See *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000) (noting that “[a]bsent [sufficient] support, this agency has declined to assume that licensees will contravene our regulations”).

⁵⁷⁰ See *Millstone*, CLI-01-24, 54 NRC at 366.

⁵⁷¹ See Nevada Petition at 17-26.

⁵⁷² See *id.*

⁵⁷³ See generally DOE Nevada Answer at 84-95.

⁵⁷⁴ See *id.* at 90.

DOE cites indicates that an investigation into the applicant's character should also include a review of the applicant's good character,⁵⁷⁵ the procedural posture of that case involved a decision on the merits.⁵⁷⁶ In proffering contentions Nevada need not make the full investigation and present both sides of the case. Pursuant to 10 C.F.R. § 2.309(f)(1)(v) and NRC case law, Nevada has provided sufficient support to have its contention admitted.

Finally, Nevada's contention is admissible because it also meets the requirements of 10 C.F.R. § 2.309(f)(1)(vi). Nevada points out that an applicant is not required to address character in the application because the NRC has not promulgated rules or regulations requiring it, and notes that DOE has not addressed its character in the Application.⁵⁷⁷ The cases that Nevada cites⁵⁷⁸ show that this information is relevant in a licensing proceeding.⁵⁷⁹ Further, the Commission has affirmed board findings that a genuine dispute exists despite the fact that character or integrity is not required by regulation to be addressed in the license application.⁵⁸⁰ Indeed, when affirming the admission of such a contention, the Commission acknowledged that it had not issued a rule or regulation pursuant to its authority under AEA § 182(a) regarding review of an applicant's character or integrity.⁵⁸¹ With the support Nevada has provided for its contention alleging the presence of a safety issue due to a defective organizational safety culture and lack of integrity on the part of DOE, together with its showing that this issue is material to an NRC licensing decision, Nevada has shown the existence of a genuine dispute on a material issue. Accordingly, the Board finds NEV-SAFETY-001 admissible.

2. *NEV-SAFETY-002*

In its second contention, NEV-SAFETY-002-DOE Management, Nevada al-

⁵⁷⁵ See *id.* at 82 (citing *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-799, 21 NRC 360, 373-74 (1985)).

⁵⁷⁶ See *South Texas*, ALAB-799, 21 NRC 360 (appeal of partial initial decision).

⁵⁷⁷ Nevada Petition at 27.

⁵⁷⁸ See *id.* at 16-17.

⁵⁷⁹ *Georgia Tech*, CLI-95-12, 42 NRC at 120-21; *Vogtle*, CLI-93-16, 38 NRC at 30-32, 36, 39-42.

⁵⁸⁰ See, e.g., *Vogtle*, CLI-93-16, 38 NRC at 41:

We accept *arguendo* that Commission regulations did not require [the applicant] to include references to character allegations in its application. However, in fairness, we cannot then require that to adequately specify a dispute over a material fact, a petitioner must refer to a particular portion of the licensee's application, when the licensee neither identified, nor was obligated to identify, the disputed issue in its application. Such a narrow reading of section 2.714(b)(2)(iii) would have the unintended effect of prohibiting petitioners from raising issues otherwise germane to a proceeding.

⁵⁸¹ *Id.* at 30-31.

leges that “[t]he [Application] cannot be granted because DOE lacks the requisite management ability to construct and operate a safe repository.”⁵⁸² Nevada provides in its brief explanation of the basis for NEV-SAFETY-002 that:

DOE’s current and past activities related to Yucca Mountain, as well as its activities with respect to its uniform mismanagement of other large projects, establishes a level of management incapacity on the part of DOE that would jeopardize the design, construction, and operation of a proposed Yucca Mountain repository, would fail to protect the public health and safety and that would fail to comply with NRC requirements, thus rendering DOE unqualified to be an NRC licensee.⁵⁸³

NEV-SAFETY-002 differs from NEV-SAFETY-001 in that it does not allege that DOE will choose not to comply with NRC regulations, but rather that it lacks the ability to properly comply with NRC regulations. For contention admissibility purposes, however, these two types of allegations are treated similarly.⁵⁸⁴ Thus, for the reasons discussed above in NEV-SAFETY-001, the Board finds, as noted in Attachment A, that NEV-SAFETY-002 is admissible.

DOE and the NRC Staff’s arguments challenging the admissibility of this contention are in large part repeats of the arguments challenging the admissibility of NEV-SAFETY-001,⁵⁸⁵ and there is no need to freight this decision with a recounting of them here. It is enough to note that these arguments remain unconvincing. As it does in NEV-SAFETY-001, Nevada points out that NRC case law and the Commission’s regulations contemplate a review of an applicant’s management competence in a licensing proceeding when the issue is properly raised.⁵⁸⁶ Nevada has raised an issue that, if found to be meritorious, would preclude the NRC from finding reasonable assurance and reasonable expectation of safety under 10 C.F.R. § 63.31(a)(1) and (2).⁵⁸⁷ Because the NRC’s finding of reasonable assurance and reasonable expectation of safety is required before a construction authorization is granted, this issue is within the scope of and material to the findings the NRC must make in this proceeding. Nevada provides sufficient

⁵⁸² Nevada Petition at 28.

⁵⁸³ *Id.*

⁵⁸⁴ See *Vogtle*, CLI-93-16, 38 NRC at 30-31 (“Commission precedent establishes that lack of either *technical competence* or *character qualifications* on the part of licensee or applicant is sufficient grounds for the revocation of a license or the denial of a license application.” (emphasis added)); *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-91-41, 34 NRC 332, 343, 359 (1991); see also *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), ALAB-772, 19 NRC 1193, 1206-07 (1984).

⁵⁸⁵ See DOE Nevada Answer at 96-112; NRC Staff Answer at 143-45.

⁵⁸⁶ Nevada Petition at 28-30.

⁵⁸⁷ *Id.* at 28-29.

support⁵⁸⁸ for this contention with examples of “current and past activities related to Yucca Mountain, as well as [DOE’s] activities with respect to its uniform mismanagement of other large projects”⁵⁸⁹ to show that a genuine dispute exists on a material issue. Accordingly, the Board finds that NEV-SAFETY-002 is admissible.

3. Institutional Concerns Regarding NEV-SAFETY-001 and -002

A final important comment is in order regarding these contentions.

From an institutional perspective, the Board cannot close its eyes to the apparent incongruity of one federal agency — even though an independent regulatory commission — presiding over and ultimately reaching a decision about the integrity and management competence of another federal department — even though DOE is statutorily defined as a “person” just as any other applicant under the AEA. Although applicable Commission precedent clearly teaches that an applicant’s character and management competence are appropriate issues in a licensing proceeding, an adjudication in the unique circumstances of the Yucca Mountain proceeding may present an institutional policy issue that the Commission may wish to consider. Accordingly, the Board believes it is appropriate to call this matter to the attention of the Commission.

4. Legal Issue Contentions

The following contentions assigned to CAB-01 are designated legal issue contentions by Nevada⁵⁹⁰ and are admitted as such:

- NEV-SAFETY-004 Content of Quality Assurance Program
- NEV-SAFETY-005 Emergency Plan
- NEV-SAFETY-006 Part 21 Compliance
- NEV-MISC-002 Alternate Waste Storage Plans

The Board also identifies the following contentions as legal issue contentions and finds them admissible:

- NEV-SAFETY-009 Increasing CO₂ Levels on Future Climate Projections
- NEV-SAFETY-010 Consideration of Forcing Functions on Future Climate Projections

⁵⁸⁸ See *id.* at 30-44.

⁵⁸⁹ *Id.* at 28.

⁵⁹⁰ *Id.* at 14, 73, 76, 80, 1147.

- NEV-SAFETY-011 Human Induced Climate Changes on Prediction of the Next Glacial Period
- NEV-SAFETY-012 Projections of Future Wetter Climate Conditions
- NEV-SAFETY-013 Future Climate Projections Need to Include Extreme Precipitation Events
- NEV-SAFETY-019 Future Infiltration Projections Need to Include Reduced Vegetation Cover
- NYE-SAFETY-004 Failure to Fully Consider Possible Air Quality and Radiological Changes Due to Pre-Closure Construction and Operational Activity

While the underlying factual components of these Board-identified contentions meet all the admissibility criteria, a legal issue may preclude their further consideration in this proceeding. For example, NEV-SAFETY-009,⁵⁹¹ NEV-SAFETY-010,⁵⁹² NEV-SAFETY-011,⁵⁹³ NEV-SAFETY-012,⁵⁹⁴ NEV-SAFETY-013,⁵⁹⁵ and NEV-SAFETY-019⁵⁹⁶ relate to the effect of climate change for either the pre-10,000-year period or the post-10,000-year period or both. Prior to further assessing these contentions, the legal issues must be briefed.

The Board notes that NEV-SAFETY-010,⁵⁹⁷ listed above, is a contention of omission alleging that DOE ignored the basic aspects of climate forcing functions relevant to the prediction of climate change over the next 10,000 years, thereby rendering the conclusions regarding long-term climate projections inaccurate and incomplete. Even though Nevada's references to the SAR are erroneous and were not corrected in Nevada's reply,⁵⁹⁸ the contention still meets admissibility requirements because a contention of omission need not necessarily address a specific section of the SAR.

NYE-SAFETY-004⁵⁹⁹ alleges that DOE has inadequately considered the radiation dose to members of the public from naturally occurring radon and its decay products emitted as a result of repository construction and normal operations. The threshold legal issue of what authority, if any, the NRC has to regulate radon and its daughters will require further briefing.

⁵⁹¹ *Id.* at 92.

⁵⁹² *Id.* at 97.

⁵⁹³ *Id.* at 102.

⁵⁹⁴ *Id.* at 107.

⁵⁹⁵ *Id.* at 113.

⁵⁹⁶ *Id.* at 142.

⁵⁹⁷ *Id.* at 97.

⁵⁹⁸ *Id.*; DOE Nevada Answer at 165-66.

⁵⁹⁹ Nye Petition at 44.

Finally, the Board notes that NEV-SAFETY-041⁶⁰⁰ also presents a legal issue. NEV-SAFETY-041 first alleges that DOE's exclusion of land-surface erosion as a FEP is incorrect because erosion studies and actual observations show that downcutting into the superficial formations will significantly change the modeling boundary conditions well before 10,000 years, and will erode the whole crest of the mountain within 1,000,000 years to depths below the elevation of the emplacement drifts. The component regarding whether DOE should have screened the erosion FEP for the first 10,000 years is admitted. Whether DOE is required to extend its assessment of FEPs excluded for the pre-10,000-year period to the period beyond 10,000 years after closure, and to what extent it must provide support regarding only the post-10,000 year period for erosion, is admitted as a legal issue component of the contention.

B. Inadmissible Contentions

As identified in Attachment B, CAB-01 finds the following contentions inadmissible:

NEV-MISC-001	Erosion and Geological Disposal
CLK-SAFETY-001	DOE's Inadequate Treatment of Uncertainty
CLK-SAFETY-012	DOE's Prior Institutional Failures Render It Unfit to Be Licensee
NYE-JOINT-SAFETY-005	Lack of NIMS in Emergency Planning

NEV-MISC-001,⁶⁰¹ designated a legal issue by Nevada, posits that construction authorization cannot be granted because, as alleged in NEV-SAFETY-041, "Yucca Mountain will erode to the level of the repository drifts beginning around 500,000 years after waste emplacement."⁶⁰² Nevada argues that:

exposing the waste packages to the atmosphere, with the result that for the period after about 500,000 years and continuing throughout the period of geologic stability (defined as 1,000,000 years), the facility will no longer constitute a "repository" but would, at best, constitute a retrievable storage facility, in violation of sections 2(18),114(d), 141(g) and 302(d) of the NWPA, section 801(a) of the EnPA, and Public Law No. 107-200 (42 U.S.C. § 10135 note).⁶⁰³

⁶⁰⁰ Nevada Petition at 238.

⁶⁰¹ *Id.* at 1144.

⁶⁰² *Id.*

⁶⁰³ *Id.*

The contention does not satisfy section 2.309(f)(1)(vi) because it does not present a genuine dispute on a material issue of law or fact. The contention raises a legal issue that depends upon resolution of factual issues presented in NEV-SAFETY-041. If those factual issues are ultimately proven valid, the Application fails and the legal issue raised in NEV-MISC-001 is moot. If, on the other hand, the factual issues underlying NEV-SAFETY-041 are invalid, then this legal issue contention is irrelevant. Accordingly, NEV-MISC-001 is inadmissible.

CLK-SAFETY-001 states that DOE's evaluation of risk is unreliable and fails to comply with the safety requirements of 10 C.F.R. Part 63. Clark states that the "[t]reatment of uncertainty in the SAR is neither complete, integrated, nor unbiased."⁶⁰⁴ Further, it states that "three important sources of uncertainty that impact the SAR results — data assumptions, model assumptions, and methods assumptions — appear in the SAR primarily as assumptions, screening 'analyses,' and claims of conservatism, and are presented without associated technical bases."⁶⁰⁵ The Board finds that CLK-SAFETY-001 is inadmissible because it does not provide the necessary facts or expert opinion required by 10 C.F.R. § 2.309(f)(1)(v). The contention also fails to provide sufficient information to show that there is a genuine dispute of material issue of fact or law as required by 10 C.F.R. § 2.309(f)(1)(vi).

CLK-SAFETY-012 alleges that "DOE lacks the requisite institutional integrity to be granted a license to construct and operate a repository in a safe and secure manner for high level radioactive waste and spent nuclear fuel at Yucca Mountain."⁶⁰⁶ With the notable exception of the quality of the support Clark proffers for its contention, this contention is generally similar to Nevada's NEV-SAFETY-001 challenging whether DOE has the requisite integrity to be an NRC licensee. And like the arguments of DOE and the NRC Staff contesting the admissibility of NEV-SAFETY-001, those same arguments are repeated in their opposition to CLK-SAFETY-012. With the exception of DOE's assertion that the contention lacks adequate support and for the reasons previously detailed regarding NEV-SAFETY-001, those DOE and NRC Staff arguments remain unavailing. Unlike NEV-SAFETY-001, however, CLK-SAFETY-012 is inadmissible for failing to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v). None of the proffered support for its contention shows, as it must under Commission precedent, an ongoing pattern of problems associated with the Applicant's character that has a direct and obvious relationship to the grant of a construction permit for the Yucca Mountain repository.⁶⁰⁷ For example, Clark's primary support rests upon

⁶⁰⁴ Clark Petition at 3.

⁶⁰⁵ *Id.*

⁶⁰⁶ *Id.* at 85.

⁶⁰⁷ See *Millstone*, CLI-01-24, 54 NRC at 365-66; *Georgia Tech*, CLI-95-12, 42 NRC at 120-21; *Vogtle*, CLI-93-16, 38 NRC at 36, 39-42.

its lessons learned report about DOE's Waste Isolation Pilot Plant (WIPP) facility in Carlsbad, New Mexico,⁶⁰⁸ but that material fails to establish the requisite connection in either time or subject matter between the WIPP-related claims and the Yucca Mountain licensing action. Similarly, the County's reliance upon a recent Government Accountability Office Report purportedly criticizing DOE's ineffectiveness in managing other projects and an 8-year-old DOE Inspector General Report criticizing statements in DOE repository evaluation documents⁶⁰⁹ falls far short of establishing this same required direct and timely nexus. Accordingly, CLK-SAFETY-012 is inadmissible.

NYE-JOINT-SAFETY-005 alleges that DOE has "failed to include key interoperability and standardized procedure and terminology requirements of the National Incident Management System (NIMS)" in its Emergency Planning required as part of its SAR.⁶¹⁰ As a result, Nye asserts that it and other offsite agencies are unable to plan properly and respond to onsite emergency actions as required by 10 C.F.R. §§ 63.161 and 72.32(b). The contention is inadmissible as beyond the scope of the proceeding in violation of 10 C.F.R. § 2.309(f)(1)(iii), for not providing necessary facts or expert opinion as required by 10 C.F.R. § 2.309(f)(1)(v), and for failing to provide sufficient information to show that there is a genuine dispute of material issue of fact or law as required by 10 C.F.R. § 2.309(f)(1)(iv). Whether requirements of other federal agencies have been met is not a proper subject for this NRC proceeding.

X. DISCUSSION AND RULING ON MOTION (CAB-02)

A. NCA Contentions

NCA submitted three contentions with its original petition, but it did not label those contentions as either "safety" or "environmental." The Board therefore adopts the labels given to these contentions by the NRC Staff in its answer, treating the first two contentions as NCA-MISC-001 and NCA-MISC-002 and treating the third contention as NCA-NEPA-001. As explained below, the Board admits NCA-MISC-001 and notes further briefing on the legal issue will be required. NCA-MISC-002 is inadmissible as explained below and the Board finds NCA-NEPA-001 admissible.

⁶⁰⁸ Clark Petition at 87-88.

⁶⁰⁹ *Id.* at 88 (citations omitted).

⁶¹⁰ Nye Petition at 56.

1. NCA-MISC-001

In this contention, NCA claims that DOE's Application fails to comply with 10 C.F.R. § 63.121(a)(1) and (2) because the Western Shoshone Nation retains an interest in the land surrounding Yucca Mountain.⁶¹¹ To the extent that it relies on the Treaty of Ruby Valley, the contention is inadmissible for the reason that any title to the land conferred by that treaty were long ago extinguished.⁶¹² Otherwise, the contention is admissible as raising a viable legal issue.

2. NCA-MISC-002

In this contention, NCA alleges that "[w]ater right [*sic*] are a reserved property interest not ceded to the [United States] by the Treaty of Ruby Valley."⁶¹³ Therefore, NCA contends, DOE cannot obtain water rights sufficient to meet the requirements of 10 C.F.R. § 63.121(b) and (d). As a separate argument, NCA "challenges the DOE application as materially incomplete because it fails to consider the Western Shoshone Nation's jurisdiction over the water rights within Newe Sogobia or the needs of the Newe individually or collectively."⁶¹⁴

In its reply, NCA cites two federal court cases for the proposition that the Western Shoshone Nation retains its water rights even after its land rights have been extinguished.⁶¹⁵ When asked about those cases at oral argument, NCA explained that federal courts have "consistently said that the destruction of — by the United States, by Congress, of the tribe's land interest does not destroy reserved hunting, fishing, gathering, water rights."⁶¹⁶ However, when pressed on this point, NCA admitted that those reserved hunting, fishing, gathering, and water rights must originate in a treaty in order to survive. And NCA counsel was unable to point to language in the Treaty of Ruby Valley which specifically reserves water rights to the Western Shoshone Nation.⁶¹⁷ Thus, contrary to NCA's claim, the Western Shoshone Nation cannot claim jurisdiction over the water rights at issue here. Because these alleged water rights form the sole ground for this contention, it raises an issue that falls outside the scope of this proceeding.

⁶¹¹NCA Petition at 7-10.

⁶¹²See *United States v. Dann*, 470 U.S. 39, 41-42 (1985); DOE NCA Answer at 51 (citing Final Supplemental EIS for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, Vol. I at 3-8); NRC Staff Answer at 1543-44.

⁶¹³NCA Petition at 10.

⁶¹⁴*Id.* at 11.

⁶¹⁵NCA Reply at 24-25 (citing *United States v. Winans*, 198 U.S. 371 (1905); *United States v. Adair*, 723 F.2d 1394 (9th Cir. 1983)); see also Tr. at 533-34.

⁶¹⁶Tr. at 550.

⁶¹⁷Tr. at 556.

Accordingly, NCA-MISC-002 is inadmissible because it fails to comply with the requirements of 10 C.F.R § 2.309(f)(1)(iii).

B. JTS Contentions

As previously explained, the contentions of JTS are deemed to consist of all the contentions proffered by TIM and TSO in their respective petitions to intervene. For its part, TIM proffered eight NEPA contentions, which will henceforth be identified as JTS-NEPA-001 through JTS-NEPA-008. TSO proffered two contentions in its amended petition to intervene, one of which TSO withdrew in its reply to DOE's answer.⁶¹⁸ Because the Board allows TSO to file an amended petition, as discussed below, CAB-02 now recognizes the sole remaining contention in TSO's amended petition as JTS-NEPA-009. Thus, in effect, JTS has proffered a total of nine NEPA contentions, numbered JTS-NEPA-001 through JTS-NEPA-009.

1. TSO's Motion for Leave to File Amended Petition

TSO's history as a petitioner in this proceeding, while relatively short, is complex. In its original petition to intervene, TSO proffered three contentions, two miscellaneous and one NEPA, which were substantially identical to those proffered by NCA. In its reply, however, TSO withdrew the two miscellaneous contentions, retaining a single NEPA contention.⁶¹⁹ Then, a week later, TSO filed a motion for leave to file an amended petition, to be considered only if the Board determined that TSO's original petition failed to state at least one admissible contention.⁶²⁰ The amended petition contains one NEPA contention and one miscellaneous contention. Both DOE and NRC Staff filed answers to TSO's amended petition, and in its reply to the NRC Staff's answer, TSO withdrew its sole miscellaneous contention.⁶²¹ Because the Board allows TSO to file an amended petition, as discussed below, just one NEPA contention remains.

TSO seeks to file its amended petition on two alternative grounds. First, TSO argues that the motion should be granted, pursuant to 10 C.F.R. § 2.309(f)(2), because the amended petition is "based on information that was not previously available and is materially distinct from the information that was available."⁶²² Alternatively, TSO contends that the 10 C.F.R. § 2.309(c)(1) factors for nontimely

⁶¹⁸ TSO Reply to NRC Staff Answer to TSO Amended Petition at 6-7.

⁶¹⁹ TSO Reply at 22 n.12.

⁶²⁰ TSO Corrected Motion for Leave at 1.

⁶²¹ TSO Reply to NRC Staff Answer to TSO Amended Petition at 6-7.

⁶²² TSO Corrected Motion for Leave at 2.

filings “weigh in favor of granting the Motion.”⁶²³ In its answer, DOE objects to the motion on both alternative grounds.⁶²⁴ The NRC Staff, however, believes that TSO has demonstrated “good cause” for its late filing, and therefore the motion should be granted under section 2.309(c)(1).⁶²⁵

To begin, TSO’s amended petition is clearly not acceptable as a nontimely filing under section 2.309(f)(2). TSO insists that its amended petition relies on information that “was not previously available.”⁶²⁶ In fact, this “newly available information” amounts to nothing more than affidavits prepared by TSO’s own experts.⁶²⁷ Assuming the information underlying those affidavits was available at the time TSO filed its original petition, the affidavits themselves cannot constitute previously unavailable information. As the NRC Staff points out, “[t]he information contemplated by § 2.309(f)(2) is not information created, developed, and adduced by the very petitioner who proposes to use it to support his non-timely contentions under a guise of timeliness.”⁶²⁸ Therefore, the Board does not grant TSO’s motion based on section 2.309(f)(2).

On the other hand, TSO’s amended petition is appropriately treated as a non-timely filing under 10 C.F.R. § 2.309(c)(1). As the NRC Staff points out, “good cause” is the most important factor to be weighed in allowing an untimely filing under section 2.309(c)(1).⁶²⁹ TSO identifies a number of factors that prevented it from completing its petition on time, including the ongoing leadership dispute with TIM, TSO’s inability to obtain funds from DOE, and TIM’s alleged interference with TSO’s records and resources.⁶³⁰ Accordingly, TSO has established good cause for its late filing. Because the remaining section 2.309(c)(1) factors also generally weigh in favor of granting the motion, the Board grants TSO’s motion for leave to file an amended petition. Therefore, the Board declines to consider the contentions proffered in TSO’s original petition and admits TSO-NEPA-001 under its new label, JTS-NEPA-009. The Board finds all nine of JTS’s NEPA contentions to be admissible, with the sole exception of JTS-NEPA-002, which is discussed below.

⁶²³ *Id.*

⁶²⁴ DOE Answer to TSO Amended Petition at 3-17.

⁶²⁵ NRC Staff Answer to TSO Amended Petition at 4-5.

⁶²⁶ TSO Corrected Motion for Leave at 10-11; *see also* 10 C.F.R. § 2.309(f)(2)(i).

⁶²⁷ TSO Corrected Motion for Leave at 10.

⁶²⁸ NRC Staff Answer to TSO Amended Petition at 7.

⁶²⁹ *Id.* at 3; *see also Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 564 (2005).

⁶³⁰ TSO Corrected Motion for Leave at 6-7.

2. JTS-NEPA-002

In JTS-NEPA-002, TIM (now recognized as JTS) challenges DOE's proclamation in its EIS that NWPA § 114(f)(2) and (3) relieves DOE of its NEPA responsibility to consider all alternatives to a repository at Yucca Mountain.⁶³¹ TIM maintains that DOE is nonetheless required under NEPA to consider an alternative repository configuration at Yucca Mountain, and specifically contends that DOE's environmental review under NEPA should consider a surface-based storage facility or near-surface storage facility.⁶³² While TIM concedes that NWPA § 114(f)(2) excuses DOE from considering alternatives to isolation in a repository, it asserts that the same statute provides no descriptors indicating that the repository need be "deep" or "mined."⁶³³ TIM also maintains that the geographic area under consideration for repository operations extends beyond the limits of Yucca Mountain physiographically, and that section 114(f)(3) of the NWPA "offers DOE no relief from broadening the definition of 'Yucca Mountain' in a practical sense,"⁶³⁴ and hence from studying physiographical alternatives thereto.

As stated by DOE, the NWPA expressly precludes DOE from the need to consider "alternatives to geologic disposal, or alternative sites to the Yucca Mountain site,"⁶³⁵ and defines "repository" as "any system licensed by the Commission that is intended to be used for, or may be used for the permanent *deep geologic disposal* of high-level radioactive waste and spent nuclear fuel."⁶³⁶ Contrary to TIM's interpretation of the NWPA, the Commission is therefore prevented from considering alternatives to deep, geologic disposal at Yucca Mountain. Thus, TIM's assertion that DOE need analyze alternatives that are surface-based and not "deep" or "mined" is in direct conflict with this statutory requirement and outside the scope of this proceeding. Therefore, the Board finds JTS-NEPA-002 inadmissible because it does not meet the requirements of 10 C.F.R § 2.309(f)(1)(iii). It also fails to present a genuine dispute on a material issue of fact or law as required by 10 C.F.R § 2.309(f)(1)(vi).

We note that CAB-01 has admitted NEV-NEPA-022, a contention that might appear facially similar to JTS-NEPA-002. Upon closer examination, however, NEV-NEPA-022 is distinguishable. Nevada takes issue with DOE's analysis of two no-action alternatives in DOE's Final EIS (FEIS), arguing that "neither alternative is likely, reasonable or feasible and instead both alternatives are remote

⁶³¹ TIM Petition at 25-26.

⁶³² *Id.* at 24.

⁶³³ *Id.* at 26.

⁶³⁴ *Id.*

⁶³⁵ NWPA § 114(a)(1)(D), 42 U.S.C. § 10134(a)(1)(D).

⁶³⁶ NWPA § 2(18), 42 U.S.C. § 10101(18) (emphasis added).

and speculative.”⁶³⁷ Unlike TIM, Nevada does not insist that DOE undertake an analysis of alternatives that the NWPA prohibits DOE from considering. Rather, it criticizes the no-action alternatives that DOE has already analyzed in its FEIS.

C. Certain California and Nevada Contentions

1. CAL-NEPA-005

CAL-NEPA-005 asserts that DOE’s environmental documents present “an incomplete and inaccurate project description that describes Yucca Mountain as having only a capacity of 70,000 metric tons heavy metal”⁶³⁸ with a portion of that amount being transported through California, when it is reasonably foreseeable that Congress at DOE’s request may authorize a capacity up to four times that total. The current capacity of the repository is fixed at 70,000 metric tons by section 114(d) of the NWPA. Because, in these circumstances, the significance of the current capacity limitation is unclear, CAL-NEPA-005 is admitted as a legal issue contention.⁶³⁹

As discussed below, two California contentions are not admitted.

2. CAL-NEPA-009

In this contention, California contends that DOE refused to hold public meetings on its Repository SEIS in areas of maximum population and potential environmental impacts in the State of California, “despite explicit and specific requests from California that it hold such public hearings.”⁶⁴⁰ Thus, California maintains, DOE’s environmental documents are inadequate and incomplete, and they fail to comply with NEPA’s procedural requirements.⁶⁴¹

Despite its claim that DOE has not complied with NEPA, California does not refer to any of the regulations implementing NEPA or explain how DOE’s actions failed to meet those regulations. Nor does California indicate how the NRC’s findings pursuant to 10 C.F.R. § 63.31(c) would be affected by DOE’s alleged failure to conduct public hearings. Thus, California fails to demonstrate that the issue raised in this contention is material to the findings the NRC must make.⁶⁴² Moreover, pertinent NEPA regulations do not even specify the number or location of public meetings required to satisfy an agency’s public

⁶³⁷ Nevada Petition at 1132.

⁶³⁸ California Petition at 37.

⁶³⁹ NWPA § 114(d), 42 U.S.C. § 10134(d).

⁶⁴⁰ California Petition at 50.

⁶⁴¹ *Id.*

⁶⁴² 10 C.F.R. § 2.309(f)(1)(iv).

review process for its environmental document.⁶⁴³ Therefore, the Board finds CAL-NEPA-009 inadmissible because it does not meet the requirement of 10 C.F.R. § 2.309(f)(1)(iv).

3. CAL-NEPA-016

In CAL-NEPA-016, California asserts that DOE did not follow the National Academy of Sciences recommendation for an independent analysis of security measures for transport of HLW and, as a result, failed to include “essential security and environmental information required by the NRC regulations.”⁶⁴⁴ California argues that the NRC, by adopting DOE’s environmental documents, does not comply with 10 C.F.R. § 63.31(b) and (c) because, without the necessary independent review, the NRC could not determine that the activities will not be inimical to the common defense and security.⁶⁴⁵

California has not demonstrated any link to a NEPA requirement or an NRC regulation. The Board finds that CAL-NEPA-016 is not within the scope of this proceeding and therefore is inadmissible under 10 C.F.R. § 2.309(f)(1)(iii).

4. NEV-SAFETY-130

NEV-SAFETY-130 challenges DOE’s Drip Shield Emplacement Plan, Equipment, and Schedule.⁶⁴⁶ Although the Board finds that NEV-SAFETY-130 meets all the requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi) and is admissible, we note that the contention’s invocation of questionable congressional funding does not provide foundational support for the contention.⁶⁴⁷

⁶⁴³ See 40 C.F.R. § 1506.6 (Agencies shall “[h]old or sponsor public hearings or public meetings whenever appropriate or in accordance with statutory requirements applicable to the agency”). Although the NRC’s regulations do not specifically address public meetings, the NRC Staff “usually conducts a public meeting or meetings near the site of the proposed action to receive public comments.” See Division of Waste Management, Office of Nuclear Material Safety and Safeguards, Environmental Review Guidance for Licensing Actions Associated with NMSS Programs, NUREG-1748 (Aug. 2003) at 4-17 (ADAMS Accession No. ML032450279).

⁶⁴⁴ California Petition at 78.

⁶⁴⁵ *Id.* at 79.

⁶⁴⁶ Nevada Petition at 701.

⁶⁴⁷ *Id.* at 708.

XI. DISCUSSION (CAB-03)

A. Certain Admitted Contentions

The following are admitted as legal issue contentions (regardless of whether so identified by the petitioner), on which further briefing will be required:

NEV-SAFETY-146	Reliance on Preliminary or Conceptual Design Information
NEV-SAFETY-149	Deviations in Design and Waste Emplacement
NEV-SAFETY-161	Critical Role of Drip Shield
NEV-SAFETY-169	Deferred Retrieval Plans
NEV-SAFETY-171	PMA and QA
NEV-SAFETY-184	Right-of-Way N-48602
NEV-SAFETY-185	Right-of-Way N-47748
NEV-SAFETY-186	Ranch Boundary Land
NEV-SAFETY-187	Public Land Order 7653
NEV-SAFETY-188	Public Land Order 6802/7534
NEV-SAFETY-189	Patent 27-83-002
NEV-SAFETY-190	Unpatented Lode and Placer Mining Claims
NEV-SAFETY-191	Nye County Monitoring Wells
NEV-SAFETY-192	Land Outside DOE's Rights-of-Way
NEV-SAFETY-193	Land Withdrawal
NEV-SAFETY-194	VH-1 Water Rights
NEV-SAFETY-201	Reliance on Preliminary or Conceptual Design Information

The Board recognizes that NEV-SAFETY-146 is identical to NEV-SAFETY-201. To avoid possible confusion, we have admitted both contentions, with the expectation that they will subsequently be consolidated.

NEV-SAFETY-146 concerns DOE's reliance on "preliminary or conceptual design information."⁶⁴⁸ In ruling on that and other contentions, the Board has generally not accepted at this point the argument that a contention is, in effect, "premature" — that a contention raises an issue that should be considered at a later stage in the licensing process. Accordingly, the Board contemplates that the eventual disposition of certain admitted contentions, such as NEV-SAFETY-

⁶⁴⁸ *Id.* at 770.

139,⁶⁴⁹ may depend on how NEV-SAFETY-146 is decided, or on subsequent briefing of other legal issues that bear on DOE's prematurity defense.

B. Inadmissible Contentions

The Board is not admitting nine contentions.

NEV-SAFETY-135⁶⁵⁰ violates 10 C.F.R. § 2.309(f)(1)(iv) and (vi) in that it fails to demonstrate a genuine dispute on a material issue. The challenged design is "not important to safety" within the meaning of NRC regulations, and the contention ignores design features that render an airtight closure unnecessary and irrelevant.

NEV-SAFETY-195,⁶⁵¹ NEV-SAFETY-197,⁶⁵² and NEV-SAFETY-198⁶⁵³ all violate 10 C.F.R. § 2.335 and involve the subject matter of a pending Commission rulemaking. Nevada has petitioned, under 10 C.F.R. § 2.335(b), for a waiver on the ground that special circumstances are such that pertinent regulations would not serve purposes for which they were adopted. Nevada's waiver petition will be addressed in a subsequent order or orders, along with various admitted legal issue contentions.

NEV-NEPA-017⁶⁵⁴ raises no genuine dispute on an issue, contrary to 10 C.F.R. § 2.309(f)(1)(vi). The contention urges a legal interpretation of the NWPA that is contrary to the plain meaning of the statute and Commission interpretations thereof.

NEV-NEPA-019⁶⁵⁵ violates 10 C.F.R. § 2.309(f)(1)(iv) and (vi) in that it seeks further environmental analysis that is contrary to the rule of reason regarding the practical limits of projecting radiation doses beyond 1,000,000 years into the future.

INYO-JOINT-SAFETY-004⁶⁵⁶ is beyond the scope of this proceeding and fails to show a genuine dispute on a material issue, in violation of 10 C.F.R. § 2.309(f)(1)(iii), (iv), and (vi). Whether requirements of other federal agencies have been met is not a proper subject for an NRC proceeding.

NEI-NEPA-002⁶⁵⁷ fails to demonstrate a genuine dispute on a material issue, contrary to 10 C.F.R. § 2.309(f)(1)(vi). DOE's challenged environmental

⁶⁴⁹ *Id.* at 739.

⁶⁵⁰ *Id.* at 726.

⁶⁵¹ *Id.* at 1016.

⁶⁵² *Id.* at 1025.

⁶⁵³ *Id.* at 1028.

⁶⁵⁴ *Id.* at 1116.

⁶⁵⁵ *Id.* at 1121.

⁶⁵⁶ Inyo Petition at 86.

⁶⁵⁷ NEI Petition at 44.

analysis presents a permissible worst-case scenario. NEPA allows an agency to conservatively “bound” adverse environmental impacts, either deliberately or inadvertently.

NEI-NEPA-003⁶⁵⁸ is not admissible as either a factual or legal issue contention. Insofar as it is proffered as a factual contention, it lacks the required affidavit support.⁶⁵⁹ Insofar as it is proffered as a legal issue contention, contrary to 10 C.F.R. § 2.309(f)(1)(vi), it does not present a genuine dispute because, even were the challenged analysis not required, it would be permissible.

XII. CONCLUSION

For the reasons set forth above, the petitions of Nevada, NEI, Nye, Nevada 4 Counties, California, Clark, Inyo, and White Pine are granted and the petition of Caliente is denied.

At this time, petitioners NCA and JTS have established their standing and each has at least one admissible contention. As previously explained, both petitioners have yet to demonstrate compliance with all requirements of 10 C.F.R. § 2.1012(b) and need to do so before their petitions may be granted.

Subsequent orders will address the briefing of legal issue contentions, initial discovery disclosures, scheduling, and other case management matters.

XIII. ORDER

For the foregoing reasons, it is, this 11th day of May 2009, ORDERED that:

1. Caliente’s petition to intervene in this proceeding is *denied* for failure to demonstrate standing.
2. The petitions to intervene of Nevada, NEI, Nye, Nevada 4 Counties, California, Clark, Inyo, and White Pine are *granted*.
3. NCA and JTS have established their standing and each has at least one admissible contention. Until they can demonstrate compliance with the LSN requirements, however, their party status is *denied*.
4. The contentions listed in Attachment A are *admissible*.
5. The contentions listed in Attachment B are *inadmissible*.
6. TSO’s March 5, 2009 motion for leave to file an amended petition is *granted*.
7. TSO’s March 17, 2009 motion for leave to file an answer to TIM’s reply is *denied* as moot.

⁶⁵⁸ *Id.* at 48.

⁶⁵⁹ *See* Section III.A, *supra*.

8. TIM's March 11, 2009 motion for LSN certification out of time is *denied*.
9. The unopposed requests from Eureka and Lincoln to participate as interested governmental bodies, pursuant to 10 C.F.R. § 2.315(c), are *granted*.
10. Eureka's February 24, 2009 motion for leave to file a reply to the oppositions filed by DOE and the NRC Staff is *denied*.
11. Nevada's January 16, 2009 motion to amend its petition to intervene as a full party is *denied*.
12. NEI's February 13, 2009 motion to strike Nevada's answer to NEI is *denied* as moot.

In accordance with 10 C.F.R. § 2.1015(b), any appeal to the Commission from this Memorandum and Order:

must be filed with the Commission no later than ten (10) days after service of the order. A supporting brief must accompany the notice of appeal. Any other party, interested governmental participant, or potential party may file a brief in opposition to the appeal no later than ten (10) days after the service of the appeal.

It is so ORDERED.

THE ATOMIC SAFETY AND LICENSING BOARDS
 CAB-01 CAB-02 CAB-03

William J. Froehlich, Chairman ADMINISTRATIVE JUDGE	Michael M. Gibson, Chairman ADMINISTRATIVE JUDGE	Paul S. Ryerson, Chairman ADMINISTRATIVE JUDGE
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Thomas S. Moore ADMINISTRATIVE JUDGE	Alan S. Rosenthal ADMINISTRATIVE JUDGE	Michael C. Farrar ADMINISTRATIVE JUDGE
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Richard E. Wardwell ADMINISTRATIVE JUDGE	Nicholas G. Trikouros ADMINISTRATIVE JUDGE	Mark O. Barnett ADMINISTRATIVE JUDGE
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Rockville, Maryland
 May 11, 2009

ATTACHMENT A
(Admissible Contentions)

CAB-01

NEV-SAFETY-001	DOE Integrity
NEV-SAFETY-002	DOE Management
NEV-SAFETY-003	Quality Assurance Implementation
NEV-SAFETY-004	Content of Quality Assurance Program
NEV-SAFETY-005	Emergency Plan
NEV-SAFETY-006	Part 21 Compliance
NEV-SAFETY-007	Retrieval Plans and QA
NEV-SAFETY-008	ALARA and the Aging Facility
NEV-SAFETY-009	Increasing CO ₂ Levels on Future Climate Projections
NEV-SAFETY-010	Consideration of Forcing Functions on Future Climate Projections
NEV-SAFETY-011	Human-Induced Climate Changes on Prediction of the Next Glacial Period
NEV-SAFETY-012	Projections of Future Wetter Climate Conditions
NEV-SAFETY-013	Future Climate Projections Need to Include Extreme Precipitation Events
NEV-SAFETY-014	Precipitation Model
NEV-SAFETY-015	Alternative Precipitation Models and Weather Variables
NEV-SAFETY-016	Qualification of Climate and Infiltration Models
NEV-SAFETY-017	Calibration and Simulation of Precipitation Model
NEV-SAFETY-018	Use of Climate Data from the Analog Sites
NEV-SAFETY-019	Future Infiltration Projections Need to Include Reduced Vegetation Cover
NEV-SAFETY-020	Net Infiltration Alternative Conceptual Model
NEV-SAFETY-021	Infiltration Model and Changes in Soil and Rock Properties
NEV-SAFETY-022	Net Infiltration Model Water Balance
NEV-SAFETY-023	Evaluation of Alternative Net Infiltration Models
NEV-SAFETY-024	Precipitation Data in Net Infiltration Model
NEV-SAFETY-025	Site-Specific Data in Net Infiltration Model
NEV-SAFETY-026	Soil Properties Data in Net Infiltration Model
NEV-SAFETY-027	Rock Properties Data in Net Infiltration Model

NEV-SAFETY-028	Net Infiltration Model Rock Properties Uncertainty Analysis
NEV-SAFETY-029	Spatial Variability of Soils and Vegetation in Net Infiltration Model
NEV-SAFETY-030	Temporal Variability in Precipitation in Net Infiltration Model
NEV-SAFETY-031	Calibration of Net Infiltration Model
NEV-SAFETY-032	Use of Initial Conditions in Net Infiltration Model
NEV-SAFETY-033	Approach to Estimating Percolation
NEV-SAFETY-034	Representation of Storm Duration for Net Infiltration Modeling
NEV-SAFETY-035	Episodic Nature of Infiltration Fluxes in Net Infiltration Analysis
NEV-SAFETY-036	Corroboration of Model Results in Post-Model Validation of Net Infiltration Simulations
NEV-SAFETY-037	Net Infiltration Model Methodology
NEV-SAFETY-038	Parameter Correlations in Net Infiltration Model
NEV-SAFETY-039	Temperature Lapse Rate Verification
NEV-SAFETY-040	Parameter Uncertainty Treatment in Net Infiltration Model
NEV-SAFETY-041	Erosion FEP Screening
NEV-SAFETY-042	Validation of Unsaturated Zone Flow Model by Simulation of Natural Chloride Distribution in Pore Waters
NEV-SAFETY-043	Validation of Unsaturated Zone Flow Model by Carbon-14 Contents, Strontium Isotope Compositions and Calcite Mineral Precipitate Abundances
NEV-SAFETY-044	Flow in the Unsaturated Zone from Episodic Infiltration
NEV-SAFETY-045	Effects of Episodic Flow
NEV-SAFETY-046	Extreme Events Undefined
NEV-SAFETY-047	Physical Basis of Site Scale Unsaturated Zone Flow
NEV-SAFETY-048	Multi-Scale Thermal-Hydrologic Model
NEV-SAFETY-049	Models of Fluid Movement in the Unsaturated Zone
NEV-SAFETY-050	Alternative Discrete Fracture Flow Models
NEV-SAFETY-051	Potential Convective Self Organization of 2-Phase Flow
NEV-SAFETY-052	EBS and Near-Field Modeling Approach

NEV-SAFETY-053	Application of the Fracture Matrix Dual Continuum Model to All Unsaturated Zone Flow Processes
NEV-SAFETY-054	Constitutive Relationships in the Yucca Mountain Infiltration, Thermo-Hydrologic, and TSPA Models
NEV-SAFETY-055	Data for the Chemistry of Pore Waters in the Topopah Springs (TSw) Formation
NEV-SAFETY-056	Geochemical Interactions and Evolution in the Unsaturated Zone, Including Thermo-Chemical Alteration of TSw Host Rock
NEV-SAFETY-057	Data for Near-Field Chemistry Models
NEV-SAFETY-058	Groundwater Samples in the Unsaturated Zone Sorption Tests
NEV-SAFETY-059	Groundwater Compositions Assumed
NEV-SAFETY-060	Empirical Site-Specific Data and the Near-Field Chemistry Model
NEV-SAFETY-061	Ambient Seepage into Emplacement Drifts
NEV-SAFETY-062	Thermal Seepage into Emplacement Drifts
NEV-SAFETY-063	Effect of Rock Bolts on Ambient Seepage
NEV-SAFETY-064	Effect of Rock Bolts on Thermal Seepage
NEV-SAFETY-065	Structural Control of Seepage in the Emplacement Drift
NEV-SAFETY-066	Attenuation of Seepage into Naturally Fractured Drift Walls
NEV-SAFETY-067	Evaluation of Uncertainties in Estimated Chemical Properties, Especially pH Values, of Evaporated Drift Brines
NEV-NEPA-001	Transportation Sabotage Scenarios
NEV-NEPA-002	Transportation Sabotage Cleanup Costs
NEV-NEPA-003	Transportation Accident Cleanup Costs
NEV-NEPA-004	Shared Use Option
NEV-NEPA-005	Radiological Regions of Influence for Transportation
NEV-NEPA-006	Caliente Rail Alignment Plan and Profile Information
NEV-NEPA-007	Overweight Trucks
NEV-NEPA-008	Impacts on Aesthetic Resources
NEV-MISC-002	Alternate Waste Storage Plans
CLK-SAFETY-002	The DOE's Failure to Analyze Missile Testing

CLK-SAFETY-003	The DOE Miscalculates Basaltic Magma Melting Depth
CLK-SAFETY-004	The DOE Ignores the Time Span of Basaltic Volcanism
CLK-SAFETY-005	The DOE Improperly Focuses on Upper Crustal Extension Patterns
CLK-SAFETY-006	The DOE Improperly Excludes the Death Valley Volcanic Field and Greenwater Range from Volcanism Calculations
CLK-SAFETY-007	The DOE Improperly Estimates Igneous Event Probability for 10,000 Years and 1,000,000 Years
CLK-SAFETY-008	The DOE Ignores 11-Million Year Volcanism Data and Instead Relies on Only 5-Million Year Volcanism Data
CLK-SAFETY-009	The DOE Fails to Consider Alternative Igneous Event Conceptual Models
CLK-SAFETY-010	The DOE Ignores Igneous Event Data Evaluated Since 1996 in the Total System Performance Analysis
CLK-SAFETY-011	The DOE Lacks Sufficient Geophysical Data to Support Its Volcanic Model
CLK-NEPA-001	The DOE Ignores Impacts on Emergency Management and Public Safety
CLK-NEPA-002	The DOE Fails to Analyze Known and Feasible Rail Corridor Alternatives
CLK-NEPA-003	The DOE Ignores Socio-Economic Impacts
NYE-SAFETY-001	Failure to Include Activities in the Performance Confirmation Program Sufficient to Assess the Adequacy of Information Used to Evaluate the Capability of the Upper Natural Barrier (UNB) Following Repository Closure
NYE-SAFETY-002	Failure to Include Activities in the Performance Confirmation Program Sufficient to Assess the Adequacy of Information Used to Evaluate the Capability of the Lower Natural Barrier (LNB) Following Repository Closure
NYE-SAFETY-003	Failure to Include Activities in the Performance Confirmation Program Sufficient to Assess the

	Adequacy of Information Used as the Basis for the Site-Scale Model Relied Upon to Evaluate the Capability of the Saturated Zone (SZ) Feature of the Lower Natural Barrier (LNB) Following Repository Closure
NYE-SAFETY-004	Failure to Fully Consider Possible Air Quality and Radiological Changes Due to Pre-closure Construction and Operational Activity
NYE-JOINT-SAFETY-006	The LA Lacks Any Justification or Basis for Excluding Potential Aircraft Crashes as a Category 2 Event Sequence
NYE-NEPA-001	Failure to Adequately Consider Cumulative Impacts to the Environment over Time, from Releases of Radiological and Other Contaminants to Groundwater and from Surface Water Discharges
WHI-NEPA-001	Failure of Environmental Impact Statements to Fully Disclose Consequences of Radiation Contaminated Tephra Deposition in Areas Other Than That Directly Applicable to the Reasonably Maximally Exposed Individual
WHI-NEPA-002	Failure of Environmental Impact Statements to Fully Disclose the Consequences of Atmospheric Transport of Radionuclides in Volcanic Gases
WHI-NEPA-003	Failure of Environmental Impact Statements to Discuss Means to Mitigate Adverse Impacts of Radiation Contaminated Tephra Deposition in Areas Other Than That Directly Applicable to the Reasonably Maximally Exposed Individual
WHI-NEPA-004	Failure of Environmental Impact Statements to Discuss Means to Mitigate Diverse Impacts of Atmospheric Transport of Radionuclides in Volcanic Gases
CAB-02	
NEV-SAFETY-068	In-Drift Condensation on Mineral Dust
NEV-SAFETY-069	Coupled Seepage and Dust Deliquescence
NEV-SAFETY-070	THC Evolution of Near-Field Pre-seepage Unsaturated Zone Water

NEV-SAFETY-071	Microbially Induced Water Chemistry Changes in the Incubator Zone
NEV-SAFETY-072	Characterization of Dust Sources
NEV-SAFETY-073	In-Drift Organic Contribution by Ventilation or Un-saturated Zone Water
NEV-SAFETY-074	Impact of Microbial Activity
NEV-SAFETY-075	Microbially Influenced Corrosion Model
NEV-SAFETY-076	Microbial Denitrification
NEV-SAFETY-077	Corrosion from Rock Bolt Seepage
NEV-SAFETY-078	Static Corrosion Tests on Alloy 22
NEV-SAFETY-079	Static General Corrosion Test Solutions
NEV-SAFETY-080	Localized Corrosion, Chloride Bearing Mineral Deposits and Hot Wall Effects
NEV-SAFETY-081	Hydrogen Uptake Resulting from General Corrosion
NEV-SAFETY-082	Corrosion of Thermally Oxidized Titanium
NEV-SAFETY-083	Adequacy of Methods of General and Localized Corrosion Testing of the Drip Shield
NEV-SAFETY-084	Use of Differential Weight Loss to Estimate Very Low Corrosion Rates
NEV-SAFETY-085	Declining Corrosion Rate over Time
NEV-SAFETY-086	Role of Rock Dust on Canister Surfaces in Localized Corrosion
NEV-SAFETY-087	Intergranular SCC Corrosion During Dry-Wet Cycle
NEV-SAFETY-088	Thermodynamics of Complex Deliquescent Salt Reactions During C-22 Corrosion
NEV-SAFETY-089	Inhibition of C-22 Corrosion by High Nitrate to Chloride Ratio
NEV-SAFETY-090	Effects of Rock Bolt on C-22 and Ti-7 Corrosion Reactions
NEV-SAFETY-091	Representativeness of C-22 and Ti-7 Corrosion Testing Methods
NEV-SAFETY-092	Impacts of Fluoride Due to Breach of HLW Containers
NEV-SAFETY-093	Natural Lead Reactions on C-22
NEV-SAFETY-094	Significance of Mineral Crusts in C-22 Corrosion
NEV-SAFETY-095	Peak Thermal Period Seepage and Corrosion

NEV-SAFETY-096	Salt Production and C-22 Corrosion Due to Heat-Pipe Conditions
NEV-SAFETY-097	Crevice Corrosion on C-22 Due to Drip Shield Corrosion Debris
NEV-SAFETY-098	Rate of Drip Shield Interconnection Corrosion
NEV-SAFETY-099	Boric Acid Production from HLW Dissolution
NEV-SAFETY-100	Ground Support Components and In-Drift Modeling
NEV-SAFETY-101	Sulfur Accumulation at the Metal-Passive Film Interface
NEV-SAFETY-102	Sulfur Accumulation and Localized Corrosion
NEV-SAFETY-103	Sulfur Accumulation and Stress Corrosion Initiation
NEV-SAFETY-104	Sulfur Accumulation and Stress Corrosion Propagation
NEV-SAFETY-105	Drip Shield Corrosion Environment
NEV-SAFETY-106	Waste Container Corrosion Environment
NEV-SAFETY-107	Electrochemical Reduction of Nitrate
NEV-SAFETY-108	Molten Salt Corrosion of the Canister
NEV-SAFETY-109	Molten Salt Corrosion of the Drip Shield
NEV-SAFETY-110	Rock Bolt Corrosion
NEV-SAFETY-111	HLW Waste Glass Dissolution
NEV-SAFETY-112	HLW Waste Glass Degradation
NEV-SAFETY-113	Competitive Sorption in the Unsaturated Zone
NEV-SAFETY-114	Applicability of Sorption Data
NEV-SAFETY-115	Matrix Diffusion
NEV-SAFETY-116	Saturated Zone Redox Conditions
NEV-SAFETY-117	Radionuclide Sorption in the Saturated Zone
NEV-SAFETY-118	Estimation of Uncertainties in Soil-to-Plant Transfer Factors
NEV-SAFETY-119	Estimation of Uncertainties in Animal Product Transfer Coefficients
NEV-SAFETY-120	RMEI Diet
NEV-SAFETY-121	Host Rock Geomechanical Properties
NEV-SAFETY-122	Screening of Drift Degradation FEPs
NEV-SAFETY-123	Durability of Ground Support
NEV-SAFETY-124	Welding of Alpha Beta Titanium Alloy to Unalloyed Titanium
NEV-SAFETY-125	Effectiveness of Stress Relief to Eliminate SCC or Hydrogen Effects

NEV-SAFETY-126	Properties of Dissimilar Metal Weld Joints Between Grade 29 and Grade 7 Titanium
NEV-SAFETY-127	Hydrogen and Erti-28 Filler Metal for Welded Joints Between Grade 29 and Grade 7 Titanium
NEV-SAFETY-128	Nuclear Code and Fabrication Quality Assurance Standards
NEV-SAFETY-129	Early Failure Mechanisms Associated with Titanium Fabrication
NEV-SAFETY-130	Drip Shield Emplacement Plan, Equipment, and Schedule
NEV-SAFETY-131	Rock Debris Removal
NEV-SAFETY-132	TEV Description
NEV-SAFETY-133	Drip Shield Gantry Description
NEV-SAFETY-134	Retrieval or Alternate Storage Description
NEV-NEPA-009	Transportation Sabotage Risk vs. At-Reactor Storage
NEV-NEPA-010	Long-Term Radiation Exposure Following Sabotage
NEV-NEPA-011	Sabotage Risk, Pressurized Cask
NEV-NEPA-012	Transportation Risk Assumptions
NEV-NEPA-013	Grazing Impacts
NEV-NEPA-014	Deferred Assessment of Railroad Construction Impacts on Grazing
NEV-NEPA-015	TAD Shipment Estimates
NEV-NEPA-016	Representative Routes
NEV-MISC-003	LA References
NEV-MISC-004	Aging Facility Role Under NWPA
4NC-SAFETY-001	Insufficient Analysis in the License Application and SAR of Transportation Container Usage and Correlating Impacts on Worker Safety
4NC-NEPA-001	Insufficient Analysis in the Environmental Impact Statement of Significant and Substantial Considerations of the Environmental Impacts of Transportation by Truck Through the Four Nevada Counties

4NC-NEPA-002	Insufficient Analysis in Environmental Impact Statement of Significant and Substantial Considerations Related to Emergency Response Capacity Within the Four Nevada Counties
4NC-NEPA-003	Insufficient Analysis in Environmental Impact Statement of Significant & Substantial New Considerations Related to Selection of Spent Nuclear Fuel Transportation Container, Which Renders Environmental Impact Statement Inadequate
CAL-NEPA-001	DOE's NEPA Documents Impermissibly Segment the Project by Deferring Analysis of the Environmental Impacts of Transportation of Spent Nuclear Fuel and High-Level Waste Through California to Yucca Mountain
CAL-NEPA-002	DOE's NEPA Documents Impermissibly Segment the Project as to Route Selection and Route-Specific Impact Analysis
CAL-NEPA-003	DOE's NEPA Documents Impermissibly Fail to Analyze and Disclose Different Environmental Impacts from the Mina and Caliente Routes
CAL-NEPA-004	DOE's NEPA Documents Fail to Adequately Discuss or Analyze Mitigation in California Adequately
CAL-NEPA-005	DOE's NEPA Documents Are Based on an Incomplete and Inaccurate Project Description, Since a Doubling or Tripling of Yucca Mountain's Capacity Is Reasonably Foreseeable Due to DOE's Request to Congress to Authorize Such a Capacity Increase
CAL-NEPA-007	DOE's NEPA Documents Fail to Adequately Describe Transportation Impacts on Emergency Services in San Bernardino County
CAL-NEPA-008	DOE's NEPA Documents Fail to Describe the Maximum Reasonably Foreseeable Accident
CAL-NEPA-010	Failure to Analyze Impacts of Intermodal Transfers
CAL-NEPA-011	Failure to Evaluate Impacts Within All Radiologic Regions of Influence
CAL-NEPA-012	Failure to Discuss and Analyze Collocation Risks
CAL-NEPA-013	Failure to Discuss and Analyze Barge Risks
CAL-NEPA-014	Failure to Describe and Analyze Waste Acceptance Criteria

CAL-NEPA-015	By Using Representative Routes, DOE Has Failed to Analyze Environmental Impacts of Probable Routes Railroads Would Use
CAL-NEPA-017	Environmental Impacts from the Use of Heavy Haul Trucks at Local Sites
CAL-NEPA-018	Failure to Analyze Impacts from the Use of California State Route
CAL-NEPA-019	Failure to Analyze Use of TAD Canisters
CAL-NEPA-020	Failure to Adequately Analyze Impacts on Local Emergency Management Responsibilities
CAL-NEPA-021	Failure to Provide a Complete and Adequate Discussion of the Nature and Extent of the Repository's Cumulative Impact on Groundwater in the Lower Carbonate Aquifer
CAL-NEPA-022	Failure to Provide a Complete and Adequate Discussion of the Nature and Extent of the Repository's Cumulative Impact on Groundwater in the Volcanic-Alluvial Aquifer
CAL-NEPA-023	Failure to Provide a Complete and Adequate Discussion of the Nature and Extent of the Repository's Cumulative Impact from Surface Discharge of Groundwater
CAL-NEPA-024	Failure to Provide a Complete and Adequate Discussion of the Nature and Extent of the Necessary Mitigation and Remediation Measures for Radionuclides Surfacing at Alkali Flat/Franklin Lake Playa
CAL-NEPA-025	Failure to Provide a Complete and Adequate Discussion of the Nature and Extent of the Repository's Cumulative Impacts from Groundwater Pumping
JTS-NEPA-001	Doses Related to Ingestion of Particulate Matter
JTS-NEPA-003	Repository Thermal Effects
JTS-NEPA-004	Saturated Zone Flow Model
JTS-NEPA-005	Infiltration Flux
JTS-NEPA-006	Economic Analysis
JTS-NEPA-007	Mitigation
JTS-NEPA-008	Future Climate
JTS-NEPA-009	NEPA Requirements
NCA-NEPA-001	NEPA Requirements

NCA-MISC-001	Land Ownership and Control
CAB-03	
NEV-SAFETY-136	Phased Ground Support Installation
NEV-SAFETY-137	Construction of the Emplacement Drifts
NEV-SAFETY-138	Description of the Ventilation System for the Repository Options Made in the TSPA-LA Regarding Waste Isolation
NEV-SAFETY-139	Description of Reasonable Emergencies
NEV-SAFETY-140	Engineered Barrier System Design Basis
NEV-SAFETY-141	Ground Support Descriptions
NEV-SAFETY-142	Standard Titanium Grades Considered
NEV-SAFETY-143	Available Drip Shield Design Information
NEV-SAFETY-144	Drip Shield Failure Mechanisms
NEV-SAFETY-145	Drip Shield Specifications
NEV-SAFETY-146	Reliance on Preliminary or Conceptual Design Information
NEV-SAFETY-147	Evaluation of Data Used in Drip Shield Failure Probability
NEV-SAFETY-148	Evaluation of Computational Procedure Used in Drip Shield Failure Probability
NEV-SAFETY-149	Deviations in Design and Waste Emplacement
NEV-SAFETY-150	Basaltic Magma Melting Depth
NEV-SAFETY-151	Time Span of Basaltic Volcanism
NEV-SAFETY-152	Focus on Upper Crustal Extension Patterns
NEV-SAFETY-153	Exclusion of Death Valley from Volcanism Calculations
NEV-SAFETY-154	Igneous Event Probability for 10,000 Years and 1,000,000 Years
NEV-SAFETY-155	11-Million Year vs. 5-Million Year Volcanism Data
NEV-SAFETY-156	Alternative Igneous Event Conceptual Models
NEV-SAFETY-157	Igneous Event Data in the TSPA
NEV-SAFETY-158	Geophysical Data in DOE's Volcanic Model
NEV-SAFETY-159	Propagation of Conceptual and Parametric Uncertainties Through the Safety Assessment
NEV-SAFETY-160	Probability Density Functions Used in the TSPA
NEV-SAFETY-161	Critical Role of Drip Shield
NEV-SAFETY-162	Drip Shield Installation Schedule

NEV-SAFETY-163	Screening of Near-Field Criticality
NEV-SAFETY-164	Aggregation of Probability Distributions
NEV-SAFETY-165	Saturated Zone Expert Elicitation
NEV-SAFETY-166	Probabilistic Seismic Hazard Analysis Expert Elicitation
NEV-SAFETY-167	Probabilistic Volcanic Hazard Analysis Expert Elicitation
NEV-SAFETY-168	Retrieval Practicality
NEV-SAFETY-169	Deferred Retrieval Plans
NEV-SAFETY-170	Conservatisms and the PMA
NEV-SAFETY-171	PMA and QA
NEV-SAFETY-172	Inspection and Verification of TAD
NEV-SAFETY-173	Emplacement Drift Monitoring
NEV-SAFETY-174	Controls and Restrictions
NEV-SAFETY-175	Controls on Pilot Relief
NEV-SAFETY-176	Controls on Pilot Maneuvering
NEV-SAFETY-177	Controls on Helicopters
NEV-SAFETY-178	Basis for Aircraft Exclusions
NEV-SAFETY-179	Controls on Aircraft Operations (Mid-Air)
NEV-SAFETY-180	Crash Frequency of Fixed-Wing Aircraft
NEV-SAFETY-181	Basis for Crash Density Calculations
NEV-SAFETY-182	Glide Distance
NEV-SAFETY-183	Crash Rates
NEV-SAFETY-184	Right-of-Way N-48602
NEV-SAFETY-185	Right-of-Way N-47748
NEV-SAFETY-186	Ranch Boundary Land
NEV-SAFETY-187	Public Land Order 7653
NEV-SAFETY-188	Public Land Order 6802/7534
NEV-SAFETY-189	Patent 27-83-002
NEV-SAFETY-190	Unpatented Lode and Placer Mining Claims
NEV-SAFETY-191	Nye County Monitoring Wells
NEV-SAFETY-192	Land Outside DOE's Rights-of-Way
NEV-SAFETY-193	Land Withdrawal
NEV-SAFETY-194	VH-1 Water Rights
NEV-SAFETY-196	Description of Security Measures
NEV-SAFETY-199	Performance Confirmation and Available Technology
NEV-SAFETY-200	Performance Confirmation Program Level of Information

NEV-SAFETY-201	Reliance on Preliminary or Conceptual Design Information
NEV-NEPA-018	Overlap Between NEPA and AEA
NEV-NEPA-020	Radionuclide Contamination of Aquifer
NEV-NEPA-021	Contaminated Aquifer Discharges
NEV-NEPA-022	No-Action Alternative
NEV-NEPA-023	Aircraft Crash Scenarios — Aging Facility
NEV-MISC-005	Role of Aging Facility
INY-SAFETY-001	Failure to Adequately Describe and Analyze the Flow Path in the Lower Carbonate Aquifer Through Which Contaminants May Migrate and Adversely Impact Areas Within the County of Inyo
INY-SAFETY-002	Failure to Adequately Describe and Analyze the Impact of the Repository in Combination with a Continuation of Existing Levels of Groundwater Pumping on the Potential Migration of Contaminants from the Proposed Repository
INY-SAFETY-003	Failure to Adequately Describe and Analyze the Volcanic Field in the Greenwater Range in and Adjacent to Death Valley National Park
INY-JOINT-SAFETY-005	The LA Lacks any Justification or Basis for Excluding Potential Aircraft Crashes as a Category 2 Event Sequence
INY-NEPA-001	Failure to Provide a Complete and Adequate Discussion of the Nature and Extent of the Repository's Direct and Cumulative Impacts on Groundwater in the Lower Carbonate Aquifer
INY-NEPA-002	Failure to Adequately Describe and Analyze the Cumulative Impact of the Repository in Combination with a Continuation of Existing Levels of Groundwater Pumping on the Potential Migration of Contaminants from the Proposed Repository
INY-NEPA-003	Failure to Provide a Complete and Adequate Discussion of the Nature and Extent of the Repository's Cumulative Impact on Groundwater in the Volcanic-Alluvial Aquifer

INY-NEPA-004	Failure to Provide a Complete and Adequate Discussion of the Nature and Extent of the Repository's Cumulative Impact from Surface Discharge of Groundwater
INY-NEPA-005	Failure to Provide a Complete and Adequate Discussion of the Nature and Extent of the Necessary Mitigation and Remediation Measures for Radionuclides Surfacing at Alkali Flat/Franklin Lake Playa
INY-NEPA-006	Failure to Adequately Describe and Analyze the Volcanic Field in the Greenwater Range in and Adjacent to Death Valley National Park Thus Failing to Assess the Potential Environmental Impacts Resulting from Igneous Activity That Could Disrupt the Repository
INY-NEPA-007	Failure to Address Socioeconomic Impacts in the County of Inyo
NEI-SAFETY-001	Spent Nuclear Fuel Direct Disposal in Dual Purpose Canisters
NEI-SAFETY-002	Insufficient Number of Non-TAD SNF Shipments to Yucca Mountain
NEI-SAFETY-003	Excessive Seismic Design of Aging Facility
NEI-SAFETY-004	Low Igneous Event Impact on TSPA
NEI-SAFETY-005	Excessive Conservatism in the Postclosure Criticality Analysis
NEI-SAFETY-006	Drip Shields Are Not Necessary
NEI-NEPA-001	Inadequate NEPA Analysis for 90% TAD Canister Receipt Design

ATTACHMENT B
(Inadmissible Contentions)

CAB-01

NEV-MISC-001	Erosion and Geologic Disposal
CLK-SAFETY-001	The DOE's Inadequate Treatment of Uncertainty
CLK-SAFETY-012	The DOE's Lack of Integrity Poses a Significant Public Safety Concern
NYE-JOINT-SAFETY-005	Failure to Include the Requirements of the National Incident Management System (NIMS), Dated March 1, 2008, and Related Documentation in Section 5.7 Emergency Planning of the Yucca Mountain Repository Safety Analysis Report (SAR)

CAB-02

CAL-NEPA-009	DOE Failed to Comply with NEPA's Procedural Requirements for Full Public Review and Opportunity for Comments in California
CAL-NEPA-016	DOE Has Ignored the NAS Recommendation of Independent Examination of the Security of Shipments
JTS-NEPA-002	Analysis of Alternatives to the Proposed Action
NCA-MISC-002	Water Rights

CAB-03

NEV-SAFETY-135	The Ventilation Doors at the Entry to the Emplacement Drifts
NEV-SAFETY-195	9/11 Terrorist Attack
NEV-SAFETY-197	Physical Protection Standard
NEV-SAFETY-198	Material Control and Accounting Plan
NEV-NEPA-017	NRC Staff's NEPA Review
NEV-NEPA-019	Peak Dose Identification

INY-JOINT-SAFETY-004 Failure to Include the Requirements of the National Incident Management System (NIMS), Dated March 1, 2004, and Related Documentation in Section 5.7 Emergency Planning of the Yucca Mountain Repository Safety Analysis Report (SAR)

NEI-NEPA-002 Overestimate of Number of Truck Shipments

NEI-NEPA-003 Over-Conservatism in Sabotage Analysis

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Eric J. Leeds, Director

In the Matter of

Docket Nos. 50-247
50-286
(License Nos. DPR-26,
DPR-64)

ENTERGY NUCLEAR OPERATIONS, INC.
(Indian Point, Units 2 and 3)

May 29, 2009

The Energy Policy Act of 2005 required that the Indian Point Nuclear Generating Units 2 and 3 (Indian Point) provide a backup electrical power supply for the emergency notification (i.e., siren) system. Entergy Nuclear Operations, Inc., the Indian Point Licensee, failed to meet multiple deadlines imposed by the Nuclear Regulatory Commission to fully implement the new siren system with a backup electrical power supply. Mr. Sherwood Martinelli, the Petitioner, submitted multiple letters pursuant to Title 10 of the *Code of Federal Regulations*, section 2.206 requesting that the Indian Point facility be immediately shut down and daily civil penalties be imposed until the new siren system is fully approved by all applicable government agencies and operational.

The NRC reviewed Entergy's efforts to design and implement a siren system with a backup power supply as required by the Energy Policy Act of 2005. The existing siren system remained operational while Entergy proceeded to place the new siren system into service. The existing system will remain available to be restored to service, if required, until the Federal Emergency Management Agency, FEMA, determines it can be dismantled.

On May 29, 2009, the Office of Nuclear Reactor Regulation issued the final Director's Decision which denied the Petitioner's request to suspend the operating licenses of the Indian Point Nuclear Generating Units 2 and 3 and the Petitioner's request to impose daily civil penalties for the untimely implementation of the new siren system. The NRC concluded that public health and safety had not been

measurably affected by the untimely implementation of the new siren system. The \$780,000 in civil penalties already imposed and Entergy's subsequent actions to implement the siren system and comply with the NRC's Orders make further enforcement actions unnecessary.

In addition, the Petitioner's request to place Indian Point Units 2 and 3 in cold shutdown, and to suspend the licenses of Indian Point Units 2 and 3 until the Licensee comes into full compliance with the design basis threat, the current licensing basis, and all NRC rules, because of corrosion in siren components, is also denied. Entergy's corrective actions have adequately resolved the matter, and no further action is needed.

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

I. INTRODUCTION

By electronic transmission dated September 28, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML072760602), and amended on January 24, 2008 (ADAMS Accession No. ML080380593), Mr. Sherwood Martinelli, representing Friends United for Sustainable Energy (FUSE, the Petitioner) filed a petition pursuant to Title 10, section 2.206, "Requests for action under this subpart," of the *Code of Federal Regulations* (10 C.F.R. § 2.206) to Chairman Dale E. Klein of the U.S. Nuclear Regulatory Commission (NRC) regarding the Indian Point Nuclear Generating Units 2 and 3 (Indian Point). The Petitioner also filed a separate petition pursuant to 10 C.F.R. § 2.206 on March 30, 2008 (ADAMS Accession No. ML080950265), which the NRC combined with the original petition and amendment. The Petitioner requested that the NRC take enforcement actions.

A. Actions Requested

In the original petition, the Petitioner stated that Entergy Nuclear Operations, Inc. (Entergy), the licensed operator for the Indian Point facilities, had not taken adequate action to ensure that the Indian Point sirens of the Alert and Notification System (ANS)¹ were fully operational. The Petitioner requested that the NRC take the following two actions:

¹Entergy refers to the emergency siren system as the Alert and Notification System (ANS) whereas the Energy Policy Act of 2005 refers to the same system as the Emergency Notification System (ENS) and the Public Alerting System (PAS). This Director's Decision uses each of these acronyms interchangeably.

1. Issue Orders, effective immediately, to suspend the Indian Point licenses until both the Federal Emergency Management Agency (FEMA) and the NRC fully approve the new siren system.
2. Fine Entergy \$130,000 per day from the date of the petition (i.e., September 28, 2007) until Entergy complies with the NRC's Confirmatory Order dated January 31, 2006 (EA-05-190, ADAMS Accession No. ML060090441), which requires the Licensee to install backup power for the Indian Point siren system.

In addition, by electronic transmission dated January 24, 2008, the Petitioner amended the original petition by citing the recent discovery of corrosion on sirens for the new ANS. In the amended petition, the Petitioner requested that the NRC take the following three actions:

1. Issue an order to immediately place both Indian Point Units 2 and 3 in cold shutdown.
2. Suspend Entergy's license to operate Indian Point Units 2 and 3 until they are in full compliance with their design basis threat, current licensing basis, and all NRC rules and regulations.
3. Fine Entergy on a daily basis for no less than \$500,000 until all levels of government have fully approved the new siren system.

Finally, by electronic transmission dated March 30, 2008, the Petitioner filed a separate petition citing numerous discharges of radiological and chemical carcinogens, both legal and illegal, over an extended period of time that continue to expose the Petitioner, his family, and pets to contaminants. The Petitioner requested the suspension of the operating licenses for the Indian Point facilities until a number of conditions are satisfactorily resolved including final approval and implementation of the new siren system.

NRC's acknowledgment letter to the Petitioner, dated February 12, 2008 (ADAMS Accession No. ML080150040), addressed the original petition dated September 28, 2007, and its amendment dated January 24, 2008. In this letter, the NRC accepted, for review pursuant to 10 C.F.R. § 2.206, FUSE concerns regarding the following two issues:

1. Entergy's failure to install the new ANS at the Indian Point facility in a timely fashion.
2. Corrosion found in sirens for the new ANS.

Furthermore, in the NRC's acknowledgment letter cited above, the NRC also consolidated the concern regarding the failure to implement the siren system in a timely manner with a similar issue raised in a separate FUSE petition dated

June 25, 2007 (ADAMS Accession No. ML072140693). The agency took this step for the following three reasons:

1. The issues are similar.
2. FUSE submitted both petitions at approximately the same time.
3. FUSE was the principal external stakeholder for both petitions.

NRC's acknowledgment letter to the Petitioner dated September 15, 2008 (ADAMS Accession No. ML082350288) addressed the petition dated March 30, 2008. In this letter, the NRC accepted, for review pursuant to 10 C.F.R. § 2.206, FUSE concerns regarding Entergy's failure to install the new ANS at the Indian Point facility in a timely manner and combined it with the previously discussed petitions for the reasons cited above.

The NRC sent a copy of the proposed Director's Decision to the Petitioner and Entergy for comment on March 23, 2009 (ADAMS Accession Nos. ML082680243 and ML082680288, respectively). The Staff did not receive any comments on the proposed Director's Decision.

B. Petitioner's Basis for the Requested Actions

The Petitioner describes the sirens as the early warning system and the best chance for members of the public living near the Indian Point facility to protect themselves and their families in the event of a terrorist attack or a radiological emergency. The Petitioner notes that Entergy is required to comply with the Energy Policy Act of 2005 and provide a backup power supply for the sirens and voiced concerns over the continuing delay in its implementation. The Petitioner believes that the impasse in obtaining final approval between Entergy and FEMA is unacceptable and that the only appropriate solution is the immediate shutdown of the Indian Point facilities. The Petitioner notes the following chronology of events:

1. The NRC issued a Confirmatory Order on January 31, 2006, requiring Entergy to supply backup power to the ANS. The Confirmatory Order required that the new ANS be fully operational and in service by January 30, 2007.
2. By letter dated January 23, 2007 (ADAMS Accession No. ML070190527), the NRC relaxed the implementation date to April 15, 2007, following a request by Entergy.
3. Testing prior to April 15, 2007, revealed that the ANS was not ready to be placed into service. By letter dated April 13, 2007 (ADAMS Accession

No. ML071030179), the NRC denied a request by Entergy to relax the implementation date of the ANS to August 31, 2007.

4. On April 23, 2007 (EA-07-092, ADAMS Accession No. ML071140022), the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty (NOV/CP) for \$130,000 to Entergy for failing to comply with the Confirmatory Order. In its response to the NOV/CP, Entergy committed to have the system in service by August 24, 2007.
5. On July 30, 2007 (EA-07-189, ADAMS Accession No. ML072070596), the NRC issued an Order, effective immediately, which required Entergy to declare the ANS with backup power operable by August 24, 2007.
6. Entergy also failed to meet its commitment of August 24, 2007. As a result, on August 30, 2007 (EA-07-212, ADAMS Accession No. ML072410542), the NRC issued a Notice of Violation (NOV) to Entergy for its failure to obtain the necessary approvals that would allow it to place the new ANS in service as the primary notification system.
7. By letter dated September 12, 2007 (ADAMS Accession No. ML072600127), FEMA issued a letter to the New York State Emergency Management Office concluding that the new ANS installed at the Indian Point facility was not adequate and did not meet applicable FEMA guidance.

C. NRC Petition Review Board's Meetings with the Petitioner

On December 21, 2007, the NRC Office of Nuclear Reactor Regulation's Petition Review Board and the Petitioner held a conference call to clarify the basis for the petition dated September 30, 2007, and amended on January 24, 2008. NRC's acknowledgment letter to the Petitioner, dated February 12, 2008, includes the transcript of this meeting (ADAMS Accession No. ML080140267). Furthermore, on August 14, 2008, the NRC Petition Review Board and the Petitioner held a conference call to clarify the basis for the petition dated March 30, 2008. NRC's acknowledgment letter to the Petitioner, dated September 15, 2008, includes the transcript of this meeting (ADAMS Accession No. ML082330375).

The transcripts of these meetings are considered to be supplements to the petitions and are available for public inspection 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 are accessible from the ADAMS public Electronic Reading Room on the NRC Web site 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 PDR reference staff by telephone at (800) 397-4209, or at (301) 415-4737, or by e-mail at pdr@nrc.gov.

II. DISCUSSION

A. Confirmatory Order of January 31, 2006 (EA-05-190)

The Energy Policy Act of 2005 (Act) (*see* 42 U.S.C. § 2210 *et seq.*) was enacted on August 8, 2005. Section 651(b) of the Act states the following (*see* Pub. L. No. 109-58, 119 Stat 594):

For any licensed nuclear power plants located where there is a permanent population, as determined by the 2000 decennial census, in excess of 15,000,000 within a 50-mile radius of the power plant, not later than 18 months after enactment of this Act, the Commission shall require that backup power to be available for the emergency notification system of the power plant, including the emergency siren warning system, if the alternating current supply within the 10-mile emergency planning zone of the power plant is lost.

Indian Point Nuclear Generating Units 2 and 3 met the criteria of the Act.

The following requirements must be met to ensure that adequate backup power is available for the emergency notification system (ENS), as required by section 651(b) of the Act:

- The backup power supply for the Public Alerting System (PAS) must meet commonly applicable standards, such as National Fire Protection Association (NFPA) Standard 1221, “Standard for the Installation, Maintenance, and Use of Emergency Communications Systems,” and Underwriters Laboratory (UL) 2017, “General-Purpose Signaling Devices and Systems,” Section 58.2.
- Each PAS and PAS Alerting Appliance (PASAA) must receive adequate power to perform their intended functions so that the backup power is sufficient to allow them to operate in standby mode for a minimum of 24 hours and in alert mode for a minimum of 15 minutes.
- The batteries that are used for backup power must recharge to at least 80% of their capacity in no less than 24 hours.
- The Licensee and appropriate government agencies must have an immediate automatic indication of a loss of power except for those components that are in facilities staffed on a continuous basis (24 hours per day, 7 days per week) or that are otherwise monitored on a continuous basis.
- The Licensee must receive an automatic notification of an unplanned loss

of power in sufficient time so that it can take compensatory action before the backup power supply fails to meet the requirements of Section IV, Part II.A.2 of the Confirmatory Order, except for those components that are in facilities staffed on a continuous basis (24 hours per day, 7 days per week) or that are otherwise monitored on a continuous basis.

The Commission determined that the operating licenses for Indian Point Nuclear Generating Units 2 and 3 must be modified to carry out the statutory mandate discussed above. On January 31, 2006 (ADAMS Accession No. ML060410151), the Licensee consented to the license modifications set forth below.

Accordingly, by Confirmatory Order issued on January 31, 2006, the NRC modified License Nos. DPR-26 and DPR-64 as follows:

- I. The Licensee shall provide and maintain a backup power supply for the ENS for the Indian Point Nuclear Generating Unit Nos. 2 and 3, facilities. The ENS is the primary prompt notification system used to alert the public of an event at a nuclear power plant.
- II. The Licensee shall implement II.A, II.B, and II.C.1-3 by January 30, 2007. The backup power system for the ENS shall be declared operable by January 30, 2007. The backup power supply for the ENS shall include, as a minimum:
 - A.1. A backup power supply for the PAS and each PASAA which shall provide adequate power for each component to perform their design function. These functions include the following as examples: sound output, rotation, speech intelligibility, or brightness as applicable. This criterion includes the associated activation, control, monitoring, and testing components for the backup power supply to the ENS including, but not limited to: radio transceivers, testing circuits, sensors to monitor critical operating parameters of the PAS and PASAA.

The Licensee is required to meet all applicable standards, such as NFPA Standard 1221, Standard for the Installation, Maintenance, and Use of Emergency Communications Systems (2002) and UL 2017, Section 58.2;

2. The backup power supply for each PAS and PASAA shall be designed for operation in standby mode, including, but not limited to: radio transceivers, testing circuits, sensors fully operational and providing polling data to the activation, control, monitoring, and test system for at least 24 hours without AC supply power from the local electric distribution grid. The backup power supply then shall be capable of performing its intended function, without recharge, by operating the PAS and PASAA in its alerting mode at its full design capability for a

period of at least 15 minutes. This sequence shall be assumed to occur at the most unfavorable environmental conditions including, but not limited to, temperature, wind, and precipitation specified for PAS and PASAA operation and assume that the batteries are approaching the end of their design life (i.e., the ensuing recharge cycle will bring the batteries back to the minimum state that defines their design life).

3. In defining battery design life, automatic charging shall be sized such that batteries in the backup power are fully recharged to at least 80 percent of their maximum rated capacity from the fully discharged state in a period of not more than 24 hours.
 4. Battery design life and replacement frequency shall comply with vendor(s) recommendations.
 5. Except for those components that are in facilities staffed on a continuous basis (24 hours per day, 7 days per week) or otherwise monitored on a continuous basis, there shall be a feedback system(s) that provides immediate automatic indication of a loss of power to the Licensee and the appropriate government agencies, and an automatic notification of an unplanned loss of power must be made to the Licensee in sufficient time to take compensatory action before the backup power supply cannot meet the requirements of Section IV, part II.A.2.
 6. The Licensee shall implement a preventative maintenance and testing program of the ENS including, but not limited to: the equipment that activates and monitors the system, equipment that provides backup power, and the alerting device to ensure the ENS system performs to its design specifications.
- B.1. The Licensee shall implement any new Department of Homeland Security (DHS) guidance pertaining to backup power for ENS that may affect the system requirements outlined in this Order that is issued prior to obtaining DHS approval of the alerting system design. The Licensee shall not implement any DHS guidance that reduces the effectiveness of the ENS as provided for in this Order without prior NRC approval.
2. The Licensee shall document the evaluation of lessons learned from any evaluation of the current alert and notification system (ANS) and address resolution of identified concerns when designing the backup power system and such consideration shall be included in the design report.
 3. The final PAS design must be submitted to DHS for approval prior to May 1, 2006.
- C.1. Within 60 days of the issuance of this Order, the Licensee shall

submit a response to this Order to the NRC Document Control Desk providing a schedule of planned activities associated with the implementation of the Order including interactions with the Putnam, Rockland, Westchester, and Orange Counties, the State of New York, and DHS. In addition, the Licensee shall provide a progress report on or shortly before June 30, 2006.

2. The Licensee shall submit a proposed revision to its emergency response plan to incorporate the implementation of items A.1-A.6, B.1-B.3, and C.4-C.5. This plan shall be submitted to the NRC for review and approval within 120 days from the issuance of the Order.
 3. Prior to declaring the ENS operable, the Licensee shall, in accordance with a test plan submitted to and approved by the NRC in conjunction with the design submittal, demonstrate satisfactory performance of all (100%) of the ENS components including the ability of the backup power supply to meet its design requirements.
 4. After declaring the ENS operable, the Licensee shall conduct periodic testing to demonstrate reliable ENS system performance.
 5. The results from testing as discussed in paragraph C.4 shall be reported, in writing, to the NRC Document Control Desk, with a copy to the Director of Nuclear Reactor Regulation, documenting the results of each test, until there are 3 consecutive tests testing the operability of all ENS components used during an actual activation, conducted no sooner than 25 days and no more than 45 days from the previous test with a 97% overall entire emergency planning zone success rate with no individual county failure rate greater than 10%. A false negative report from a feedback system will constitute a siren failure for the purposes of this test.
- III. The Licensee shall submit a written report to the NRC Document Control Desk, with a copy to the Director of Nuclear Reactor Regulation, when the ENS is declared operable.
 - IV. The Licensee shall submit a written report to the NRC Document Control Desk and provide a copy to the Director of Nuclear Reactor Regulation when it has achieved full compliance with the requirements contained in this Order.
 - V. The Licensee may use the criteria contained in 10 CFR 50.54(q) to make changes to the requirements contained in this Order without prior NRC approval provided that they do not reduce the effectiveness of the Order requirements or the approved emergency plan. The Licensee shall notify, in writing, the NRC Document Control Desk, with a copy to the Director, Division of Preparedness and Response, Office of Nuclear Security and Incident Response, 30 days in advance of implementing such a change. For other changes, the Licensee may submit a request, in writing, to the NRC Document Control Desk, with a copy to the Director, Office of Nuclear

Reactor Regulation, to relax or rescind any of the above requirements upon a showing of good cause by the Licensee.

B. Relaxation of the Confirmatory Order — January 23, 2007

Section IV.V of the Confirmatory Order permitted Entergy to request a relaxation of the requirements. By letter dated January 11, 2007 (ADAMS Accession No. ML070170122), Entergy requested that the NRC relax section IV.II of the Confirmatory Order to change the required implementation date for the backup power system to the ENS from January 30, 2007, to April 15, 2007. In its extension request letter, Entergy identified the following three factors that contributed to the delay:

- Permits and approval
- Equipment installation issues
- Other follow-up activities such as system testing and emergency personnel training.

In the extension request, Entergy summarized the progress it made in complying with the Confirmatory Order. Entergy indicated that it had completed the research, design, and fabrication of the two redundant, physically separated communication systems that will comprise the communication links for the new ENS. In addition, Entergy nearly completed installation of all of the equipment. Entergy indicated that the system will consist of 150 new sirens and metal poles, 12 computer-based control stations, and new communications links between the redundant technologies. Entergy also stated that it expected installation of the few remaining components by January 30, 2007, with the exception of equipment that will be installed on the Grasslands Tower.

The NRC Staff evaluated the factors presented in the extension request and Entergy's ability to have reasonably foreseen difficulties that could impact the required completion date of January 30, 2007. Additionally, the NRC Staff evaluated Entergy's level of control to rectify each problem. In particular, the NRC Staff noted that the structural modification of the Grasslands Tower was the critical path element impacting the schedule. The NRC Staff determined that Entergy provided sufficient evidence that the necessary structural modifications for the Grasslands Tower to support the equipment installation of antennas and microwave dishes could not have been reasonably foreseen any earlier. The NRC Staff review included an evaluation of when Entergy discovered the need to modify the tower and whether Entergy could control the necessary modifications. After Entergy received a preliminary analysis that identified structural deficiencies, it initiated additional analysis and structural repairs to expedite the completion of the tower improvement project.

Pursuant to section IV.V of the Confirmatory Order, the NRC Staff concluded that Entergy made a good faith effort to comply with the Confirmatory Order and demonstrated good cause to relax the Confirmatory Order. Therefore, by letter dated January 23, 2007, the NRC granted Entergy's request to relax the implementation date of the Confirmatory Order from January 30, 2007, to April 15, 2007.

C. Extension Request Denied — April 13, 2007

By letter dated April 13, 2007 (ADAMS Accession No. ML071140092), Entergy stated that the new ENS would not be operable by April 15, 2007, and requested a relaxation of the requirements of the Confirmatory Order with a new completion date of August 31, 2007. The letter also stated that Entergy would provide a detailed plan to the NRC by May 14, 2007, as to how and when Entergy planned to meet the conditions of the Order.

As part of the request, Entergy discussed the difficulties encountered in achieving reliable operation in the radio-only activation mode. The NRC Staff evaluated the factors presented in the request and Entergy's ability to have reasonably foreseen difficulties that impacted the completion date of April 15, 2007. Additionally, the NRC Staff evaluated the extent to which the factors that Entergy described were within its control. The NRC concluded that these factors were known or should have been known by Entergy at the time it requested the first extension. Therefore, inasmuch as Entergy had not demonstrated good cause, by letter dated April 13, 2007, the NRC denied Entergy's request for a relaxation of the Confirmatory Order.

D. Notice of Violation and Proposed Imposition of Civil Penalty of \$130,000 on April 23, 2007 (EA-07-092)

In accordance with the NRC Enforcement Policy, on April 23, 2007, the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty, pursuant to section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2282, and 10 C.F.R. § 2.205, "Civil penalties." The NOV described the violation as follows:

The Energy Policy Act (Act) of 2005, requires in part that "For any licensed nuclear power plants located where there is a permanent population, as determined by the 2000 decennial census, in excess of 15,000,000 within a 50-mile radius of the power plant, not later than 18 months after enactment of the Act, the Commission shall require that backup power to be available for the emergency notification system of the power plant, including the emergency siren warning system, if the alternating

current supply within the 10-mile emergency planning zone of the power plant is lost.”

NRC Confirmatory Order (Order) (EA-05-190) — Emergency Notification System (ENS) Backup Power for Indian Point Nuclear Generating Units 2 and 3, Sections IV.I and IV.II, as modified pursuant to Section IV.V of the Order by letter from J. Dyer to M. Kansler, dated January 23, 2007, required that the Licensee shall implement II.A, II.B, and II.C.1-3 by April 15, 2007, including requiring the backup power system for the ENS shall be declared operable by April 15, 2007.

Contrary to the above, the Licensee for the Indian Point Generating Station, Units 2 and 3, failed to meet the Order requirements to implement an ENS with backup power capability by April 15, 2007. Specifically, the “radio only activation” feature, the portion of the ENS for which the backup power capability was provided, did not meet its test acceptance criteria, resulting in the ENS not being fully operable by April 15, 2007.

The NRC imposed a civil penalty of \$130,000 on the Licensee.

E. Order of July 30, 2007 (EA-07-189)

By letter dated May 23, 2007 (ADAMS Accession No. ML071430427), Entergy responded to the April 23, 2007, NOV/CP and committed to implement the new ENS by August 24, 2007. In its response, Entergy admitted to the violation of the Confirmatory Order, identified the apparent causes of the violation, and described corrective actions that were taken or planned to correct the violation.

The NRC held a public meeting with Entergy officials on July 9, 2007, to clarify Entergy’s actions to comply with the Confirmatory Order, particularly with respect to ensuring that the new ENS met applicable FEMA regulations and that any specific county needs were identified and addressed before Entergy declared the new ENS operable.

The NRC evaluated Entergy’s response to the April 23, 2007, NOV/CP and the additional information gathered during the public meeting of July 9, 2007. The NRC determined that additional actions would be needed to ensure that the new ENS with backup power supply capability would be operable by August 24, 2007, as Entergy committed to in its letter of May 23, 2007. These actions included: completing the outstanding requirements delineated in the aforementioned Confirmatory Order dated January 31, 2006, as modified herein; implementing those measures necessary for FEMA to accept the new ENS as the primary ENS for alerting the public by August 24, 2007; and completing the necessary software and procedure upgrades and training of county personnel who will be responsible for the actuation of the system.

Accordingly, by Order issued on July 30, 2007, the NRC modified License Nos. DPR-26 and DPR-64 as follows:

- I. The Licensee shall meet all the provisions contained in the January 31, 2006, Confirmatory Order (see Appendix A of this Order), except as specifically modified or supplemented herein. With respect to the requirement to provide and maintain an ENS with backup power supply capability for the Indian Point Nuclear Generating Unit Nos. 2 and 3 facilities, the new ENS intended to comply with that requirement shall meet applicable requirements of state and federal authorities such that it is declared operable and placed into service as the primary system by August 24, 2007.
- II. The Licensee shall provide to NRC within 7 days of this order a report describing the steps and the expected schedule for completing each of the steps that the Licensee understands are necessary to meet applicable requirements of state and federal authorities to place the new ENS system into service as the Primary Notification system. The report should identify any uncertainties in identification of requirements or in schedules associated with requirements.
- III. Prior to declaring the new ENS operable and using it as the primary system, the Licensee shall: (a) obtain FEMA approval that the system, as installed, meets the design criterion of the approved ENS Design Report and is in compliance with all applicable FEMA regulations and guidance; and, (b) complete all necessary software and procedure upgrades and training of all the four county response organizations, accounting for the specific training needs identified by the counties, in the proper use of the new ENS and response to associated alarming conditions.
- IV. The Licensee shall maintain the existing ENS fully available (including conducting routine maintenance and testing activities) and establish the necessary procedures and actions to enable its use as a backup to the new ENS when the new ENS is declared in use as the primary system, until such time that FEMA grants approval to remove the existing ENS from service.

F. Notice of Violation — August 30, 2007 (EA-07-212)

By letter dated August 17, 2007 (ADAMS Accession No. ML072400313), Entergy informed the NRC that the outstanding requirements of the January 31, 2006, Confirmatory Order and the necessary software and procedure use upgrades and training of county personnel were either completed or would be completed by August 24, 2007. However, Entergy indicated that it was uncertain about the date by which it would obtain FEMA acceptance of the new ENS as the primary system for alerting the public. In addition, during an August 20, 2007, technical meeting in which Entergy provided FEMA with the status of its outstanding siren issues, FEMA indicated that because Entergy planned to provide information as late as August 22, 2007, its review would take at least 45 days.

By letter dated August 23, 2007 (ADAMS Accession No. ML072390181), Entergy requested that the NRC consider modifying the terms and conditions of

the July 30, 2007, Order to accommodate the FEMA review. The NRC concluded that Entergy had not demonstrated good cause and, by letter dated August 30, 2007, the NRC denied Entergy's request to modify the Order and issued an NOV.

G. Discovery of Corrosion on Siren Components January 2008

In late 2007, Entergy conducted visual inspections of a sample of the new sirens in accordance with Indian Point approved procedures. Entergy removed the back covers of each individual siren speaker to inspect the drivers and wiring. The siren drivers are the speaker portions of the digital siren located at the top of the siren pole. Each siren location typically has thirty-two drivers (eight siren heads in each of four orthogonal directions). Seven of the nine sirens that were inspected exhibited significant corrosion on the siren drivers and wiring. The Licensee's inspections revealed numerous corroded driver terminals, broken driver terminals, corroded and failed wire connectors, and corroded terminal strips. The type of corrosion observed was galvanic corrosion which requires dissimilar metals in contact with the presence of an electric current. The design of the siren system requires a power source that continuously applies 24-volt direct current between the siren circuitry and the ground while in the idle mode. The Licensee concluded that the location of the drivers along with the presence of moisture and environmental contaminants with a continuously applied voltage created the environment necessary to support the type of corrosion that it observed.

Entergy subsequently conducted a complete inspection of the siren system connections. The Licensee confirmed with the vendor that a protective gel coating should have been applied during installation and that the absence of this protective coating along with a continuously applied voltage significantly contributed to the accelerated corrosion of the driver terminals. Corrective actions included the repair and/or replacement of degraded components, removal of existing corrosion, modification of the siren housing to permit moisture drainage, and the application of a protective gel at all the vulnerable junction points of the siren circuitry. Licensee procedures include periodic inspections of the siren system components to monitor potential corrosion. The NRC Staff monitored the Licensee's actions and reached the following two conclusions:

1. The Licensee's corrective actions were reasonable and have been completed.
2. The Licensee took adequate corrosion preventive measures before it placed the new system in service.

Since corrosion preventive measures were taken before Entergy placed the new siren system into service, corrosion of siren components posed no threat to public health and safety. There were no violations of NRC requirements.

**H. Notice of Violation and Imposition of Civil Penalty of \$650,000
January 24, 2008 (EA-08-006)**

On January 24, 2008 (ADAMS Accession No. ML080240005), the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty to Entergy because of its continued failure to implement Orders issued by the NRC on January 31, 2006 (EA-05-190), and July 30, 2007 (EA-07-189). The two Orders, in part, required that Entergy have a PAS in place (i.e., the ENS with a backup power system capability). The NOV imposed a civil penalty of \$650,000 for Entergy's continued failure to implement the ENS between April 16, 2007, and January 24, 2008.

I. Entergy's Siren Project Milestone Schedule February 8, 2008

By letter dated February 8, 2008 (ADAMS Accession No. ML080430045), Entergy submitted its siren project milestone schedule for the ENS. The Licensee's schedule included obtaining FEMA approval for placing the system in service by August 6, 2008, and placing the system in service by August 14, 2008.

J. Confirmatory Action Letter (1-08-005)

During a meeting held on July 22, 2008, between Entergy and FEMA, with the NRC present, to discuss the installation of the new ANS, Entergy made commitments to supplement the population coverage of the primary siren alerting system by installing tone alert radios (TARs) as a system enhancement. Entergy stated that although the new siren system reaches "essentially 100%" of the fixed population living within the emergency planning zone (EPZ), TARs would be deployed to alert the remaining population that may not receive a siren alerting sound volume level consistent with FEMA guidance. Entergy later documented its commitments regarding TARs made during the meeting in a letter to the NRC dated July 31, 2008 (ADAMS Accession No. ML082240304).

Confirmatory Action Letter No. 1-08-005, dated August 22, 2008 (ADAMS Accession No. ML082350676), documented that Entergy would complete the following actions:

- (1) Entergy will implement a TAR Control Program which will contain the following provisions, prior to placing the new siren system in service:
 - Utilizing a prescribed analytical methodology for identifying the residential and special facility locations that will be offered TARs based on the acoustic coverage maps for the new siren system and data from the 2000 decennial census.

- Documenting the best effort attempts to place the TARs at the locations identified using the prescribed analytical methodology.
 - Maintaining a record system of the addresses where the TARs are placed and notation of locations, if any, where TARs were declined.
 - Maintaining a program for updating TAR locations as a result of new addresses or occupant changes at the existing addresses.
 - Providing annual replacement batteries, including a spare set, which can be installed by the user, if needed.
 - Providing instructions to users regarding the purpose and operation of the TAR, including instructions for manual testing of the batteries.
 - Having a means of periodic operational verification and reliability testing of the TARs.
 - Maintaining a feedback mechanism for TAR users to ask questions about their TARs and to provide information to the counties and/or Entergy.
- (2) Entergy will distribute TARs to required locations in the 0-5 mile region in the EPZ prior to placing the new siren system in service.
 - (3) Entergy will distribute TARs to required locations in the region of the EPZ beyond 5 miles on or before November 1, 2008.

K. FEMA Grants Provisional Acceptance

By letter dated August 22, 2008, FEMA concluded that the ANS at Indian Point met FEMA regulations and guidance and was therefore acceptable on a provisional basis, pending the following:

- The new system will be undergoing acoustic and reliability tests throughout the next year, during which the old system will remain in place as a backup in case of a failure of the new system.
- The results of the testing must be submitted to the State and to FEMA in a Final Design Report. Upon approval of those findings, FEMA will provide acceptance of the system as the primary ANS for Indian Point, at which time the old system may be dismantled.
- There are several areas at the edges of the extended EPZ where siren sound levels are not quite as high as they would ideally be, as shown in the July 30, 2008, version of the Design Report. Entergy has committed to offering each household within those areas TARs no later than November 1, 2008. This delay is based on the supply of TARs in stock; new ones have been ordered and are being manufactured.

- Therefore, it is recommended that each of the Counties program their R-911-type systems to alert those households until they have received the TARs. We understand that the Counties are prepared to do this and that it will not be a time consuming or particularly difficult measure to implement since each of the households within the areas has been identified.
- It is noted that Entergy currently has a TAR Program in place for institutions such as hospitals. The TARs that will be in households are to be added to the program, which requires maintenance of the devices and updating the records of recipients (making sure that people who have moved into the area are provided with a radio), and annual provision of information and backup batteries to those who have radios. This program will, per Entergy's commitment to the NRC, become part of Entergy's licensing basis as delineated in Confirmatory Action Letter No. 1-08-005.

L. Entergy Places New ANS into Service

On August 27, 2008, Entergy placed the new ANS into service. The new notification system is a state-of-the-art system that has many improvements over the old system including the following:

- Battery back-up power for each siren,
- An additional 60 square miles of coverage in the EPZ,
- Steel poles versus the old wood poles,
- Full self-diagnostic capabilities for each siren,
- No rotating or moving parts.

As discussed in the FEMA approval letter, the new sirens would undergo a 1-year review and test period. Entergy stated that the old siren system would remain available during this time, if needed, and could be brought back online within 60 minutes.

After declaring the ANS operable, Entergy conducted periodic testing in accordance with Confirmatory Order section II.C.4 and .5. The Confirmatory Order required three consecutive tests successfully demonstrating the operability of all ENS components used during an actual activation, conducted no sooner than 25 days and no more than 45 days from the previous test with a 97% overall entire emergency planning zone success rate with no individual county failure rate greater than 10%. These tests, which were conducted on September 24, October 22, and November 20, 2008, successfully demonstrated operability as required by the Confirmatory Order.

M. NRC Closeout Inspection

NRC Inspection Report Nos. 05000247/2008503 and 05000286/2008503 dated January 27, 2009 (ADAMS Accession No. ML090280267), provided the NRC's closeout inspection of the Indian Point ANS. The inspection report concluded that Entergy had complied with all the requirements of the NRC's Confirmatory Order of January 31, 2006, and the Order of July 30, 2007, regarding the design, installation, and testing of the new ANS. Further, the inspection report concluded that all the commitments documented in the NRC Confirmatory Action Letter of August 22, 2008, regarding deployment of TARs to supplement the siren system had been satisfied.

N. Closeout of Enforcement Activities

By letter dated March 3, 2009 (ADAMS Accession No. ML090620457), NRC Region 1 closed out the NRC Orders, Confirmatory Action Letter, and enforcement actions taken with respect to the ANS. Furthermore, the NRC concluded that no additional enforcement action was planned. The letter cited civil penalties totaling \$780,000 issued against Entergy over the last 2 years in connection with delays in making the new siren system at Indian Point operational. The letter also cited the most recent NRC inspection report wherein the Staff concluded that Entergy had addressed the relevant issues, successfully implemented the ANS, and met all NRC requirements.

III. CONCLUSION

The Petitioner raised issues related to the untimely implementation of the new ANS described in the Energy Policy Act of 2005 and the subsequent discovery of corrosion on the new sirens at the Indian Point site.

The NRC has reviewed Entergy's efforts to design and implement a siren system with a backup power supply as required by the Energy Policy Act of 2005. The existing siren system remained operational while Entergy proceeded to place the new siren system into service. The existing system will remain available to be restored to service, if required, until FEMA determines it can be dismantled. The NRC concludes that public health and safety have not been measurably affected by the untimely implementation of the new siren system. Furthermore, the NRC has found Entergy's response to the corrosion issue to be reasonable and technically sound.

Based on the above, the Office of Nuclear Reactor Regulation denies the Petitioner's request to suspend the operating licenses of the Indian Point Nuclear Generating Units 2 and 3 and the Petitioner's request to impose daily civil

penalties for the untimely implementation of the new siren system. The \$780,000 in civil penalties already imposed, and Entergy's subsequent actions to implement the siren system and comply with the NRC's Orders, make further enforcement actions unnecessary.

In addition, the Petitioner's request to place Indian Point Units 2 and 3 in cold shutdown, and to suspend the licenses of Indian Point Units 2 and 3 until the Licensee comes into full compliance with the design basis threat, the current licensing basis, and all NRC rules, because of corrosion in siren components, is also denied. As explained above, there were no violations and no threat to public health and safety associated with the identified corrosion of some siren components. Entergy's corrective actions have adequately resolved the matter, and no further action is needed.

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 Commission review. As provided 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

Eric J. Leeds, Director
Office of Nuclear Reactor
Regulation

Dated at Rockville, Maryland,
this 29th day of May 2009.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Peter B. Lyons
Dale E. Klein
Kristine L. Svinicki

In the Matters of

**ENTERGY NUCLEAR GENERATION
COMPANY and ENTERGY NUCLEAR
OPERATIONS, INC.
(Pilgrim Nuclear Power Station)**

Docket No. 50-293-LR

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

Docket No. 50-271-LR

June 4, 2009

The Commission denies the particular relief requested in a request for direct Commission action, but acknowledges the petitioner's concerns and explains how the Commission will address them.

NEPA: GENERIC ISSUES

Because NRC license renewal regulations codify environmental impacts conclusions for a number of generically reviewed issues, these issues normally fall outside the scope of individual license renewal proceedings. But our rules recognize the possibility of new and significant information calling into question prior generic findings, and our decisions have consistently pointed to the petition for rulemaking device as one means to alert the Commission to new information that may render a generic finding incorrect.

MEMORANDUM AND ORDER

The Commonwealth of Massachusetts (“the Commonwealth”) has petitioned the Commission for review of LBP-08-22 and LBP-08-25, Partial Initial Decisions issued by Atomic Safety and Licensing Boards in the *Pilgrim* and *Vermont Yankee* license renewal proceedings.¹ Applicants Entergy Nuclear Generation Company and Entergy Nuclear Operations, Inc. (collectively, “Entergy”),² and the NRC Staff oppose the petitions for review. Because the factual and legal issues the petitions raise are the same for both the *Pilgrim* and *Vermont Yankee* proceedings, the Commonwealth requests that the Commission issue a single decision addressing both petitions. Our decision today consolidates and addresses both petitions for review.

For reasons outlined further below, we have construed the Commonwealth’s petitions as a request for Commission action, and not as actual “petitions for review” under 10 C.F.R. § 2.341. Although we deny the particular relief requested in the Commonwealth’s requests, our decision today acknowledges the Commonwealth’s concerns and explains how the Commission will handle them, thereby rendering further, formal relief unnecessary.

Earlier decisions bearing on the *Pilgrim* and *Vermont Yankee* license renewal applications recount in some detail both the procedural background of this case and the NRC’s regulatory process for license renewal.³ Below we provide a condensed case history.

I. BACKGROUND

The Commonwealth petitioned for a hearing and to intervene in the *Pilgrim* and *Vermont Yankee* license renewal proceedings, submitting in both proceedings

¹ See Commonwealth of Massachusetts Petition for Review of LBP-08-22 (Nov. 12, 2008) (“*Pilgrim* Petition”); Commonwealth of Massachusetts Petition for Review of LBP-08-25 and Request for Consolidated Ruling (Dec. 2, 2008) (“*Vermont Yankee* Petition”). To avoid duplicative argument, the Commonwealth’s *Vermont Yankee* Petition adopts and incorporates by reference its *Pilgrim* Petition. See *Vermont Yankee* Petition at 2 n.3.

² Entergy Nuclear Operations, Inc. and Entergy Nuclear Generation Company are licensees for the *Pilgrim* nuclear reactor facility. Entergy Nuclear Operations, Inc. and Entergy Nuclear Vermont Yankee, LLC are licensees for the *Vermont Yankee* facility. In this decision, we refer collectively to the license applicants as “Entergy.”

³ See, e.g., *Massachusetts v. United States*, 522 F.3d 115 (1st Cir. 2008); LBP-06-20, 64 NRC 131, 148-49, 152-61 (2006); LBP-06-23, 64 NRC 257, 274-300 (2006); CLI-07-3, 65 NRC 13 (2007).

a single and essentially identical contention.⁴ The contentions claimed that the Applicants' license renewal applications failed to comply with the National Environmental Policy Act (NEPA) and with NRC environmental regulations because the applications did not address new and significant information on the risks of potential spent fuel pool accidents in pools with high-density storage racks. This information, the Commonwealth claimed, was never "previously considered by the NRC in any EIS," and "show[ed] that the impact of high-density spent fuel pool storage" would be "significantly greater than contemplated in prior [NRC] EISs," including the Generic Environmental Impact Statement for License Renewal of Nuclear Plants (GEIS), issued in 1996.⁵ The contentions additionally claimed that the license renewal applications were deficient because they did not provide a NEPA analysis of the potential impacts of deliberate attacks on the spent fuel pool, and did not analyze alternatives to mitigate spent fuel pool accidents.

Separate Licensing Boards in the *Pilgrim* and *Vermont Yankee* proceedings found the Commonwealth's contention beyond the scope of a license renewal proceeding and therefore inadmissible. Both Boards highlighted the NRC's regulatory review process for license renewal, in which the environmental review is divided into those NEPA issues deemed appropriate for generic analysis and those warranting a site-specific environmental impacts analysis. Issues found not to require a plant-specific environmental analysis are designated as "Category 1" issues.⁶ For such issues, the NRC's GEIS for license renewal provides a generic environmental analysis — generally applicable to all plants or to a distinct subcategory of plants. Because "Category 1" issues already have been reviewed on a generic basis for all plants, an applicant's Environmental Report need not provide a site-specific analysis of these issues.⁷ In contrast, applicants must provide a plant-specific analysis of all "Category 2" issues.⁸ The GEIS's conclusions on the environmental impacts of "Category 1" issues are codified in Table B-1, 10 C.F.R. Part 51, Appendix B to Subpart A.

In rejecting the Commonwealth's contention, the *Pilgrim* and *Vermont Yankee* Boards found that the potential environmental impacts of storing spent fuel in

⁴ See Massachusetts Attorney General's Request for a Hearing and Petition for Leave to Intervene with Respect to Entergy Nuclear Operation's Inc.'s Application for Renewal of the Pilgrim Nuclear Power Plant Operating License (May 26, 2006) (ADAMS Accession No. ML061630088) ("Contention/Pilgrim") at 21-47; Massachusetts Attorney General's Request for a Hearing and Petition for Leave to Intervene with Respect to Entergy Nuclear Operations Inc.'s Application for Renewal of the Vermont Yankee Nuclear Power Plant Operating License (May 26, 2006) (ADAMS Accession No. ML061640065) ("Contention/Vermont Yankee") at 21-47.

⁵ See Contention/Vermont Yankee at 23; Contention/Pilgrim at 23.

⁶ See generally NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," Final Report, Vol. 1 (May 1996) ("GEIS") at 1-5 to 1-11.

⁷ See 10 C.F.R. § 51.53(c)(3)(i).

⁸ See 10 C.F.R. § 51.53(c)(3)(ii).

pools for an additional 20 years — including the risk of spent fuel pool accidents — already had been generically addressed in the GEIS as a “Category 1” issue that does not require a site-specific impacts analysis.⁹ The Boards went on to conclude that because “Category 1” environmental impacts findings are codified in NRC regulations, such findings normally may not be attacked in individual NRC adjudicatory proceedings, unless the Commission waives the rule at issue for a particular proceeding, or the rule is changed or suspended due to a rulemaking review.¹⁰ The Boards noted, however, that new and significant information going to the validity of a generic “Category 1” finding appropriately could be raised in a petition for rulemaking, and that the Commonwealth in fact had filed a rulemaking petition raising concerns similar to its spent fuel pool contention.¹¹

In CLI-07-3, the Commission affirmed the *Pilgrim* and *Vermont Yankee* Board decisions, concurring that the Commonwealth’s contention impermissibly attacked the GEIS’s generic “Category 1” finding on spent fuel pool storage impacts.¹² We confirmed that “[b]ecause the generic environmental analysis was incorporated into a regulation, the conclusions of that analysis may not be challenged in litigation unless the rule is waived . . . for a particular proceeding or the rule itself is suspended or altered in a rulemaking proceeding.”¹³

Like the Boards, we emphasized that the appropriate avenue for challenging a generic “Category 1” environmental impacts conclusion was through the rulemaking petition that the Commonwealth had already filed. We further made clear that if the rulemaking review were not resolved before the licensing proceedings were completed, the Commonwealth could seek to have the licensing proceedings suspended pending an NRC decision on its rulemaking petition, if it participated in the proceedings as an interested State, under 10 C.F.R. § 2.315(c).¹⁴

The Commonwealth sought Commission reconsideration of CLI-07-3. We denied reconsideration, but again clarified that while the Commonwealth was not an admitted “party” to either licensing proceeding, it would be able to request that

⁹ See LBP-06-20, 64 NRC at 152-61; LBP-06-23, 64 NRC at 280-300. The current GEIS concludes that the environmental effects of onsite spent fuel pool storage during the license renewal term would not be significant. See GEIS at 6-85 to 6-86; see also *id.* at 6-70 to 6-75, 6-79 to 6-83.

¹⁰ LBP-06-20, 64 NRC at 155-61; LBP-06-23, 64 NRC at 288-99. See also 10 C.F.R. § 2.335(a).

¹¹ LBP-06-20, 64 NRC at 161; LBP-06-23, 64 NRC at 299 (referencing Massachusetts Attorney General’s Petition for Rulemaking to Amend 10 C.F.R. Part 51 (Aug. 25, 2006) (ADAMS Accession No. ML062640409)).

¹² See CLI-07-3, 65 NRC at 19-21.

¹³ *Id.* at 17-18. Where there are unusual circumstances that would render a “Category 1” analysis inapplicable to a particular plant, a petitioner may seek a rule waiver; Commission approval of a rule waiver could allow litigation of a contention on a “Category 1” issue. *Id.* at 20.

¹⁴ *Id.* at 22 & n.37.

the proceedings be stayed — pending a decision on the petition for rulemaking — if it sought to participate as an interested State.¹⁵

The Commonwealth sought judicial review in the U.S. Court of Appeals for the First Circuit. The court upheld the NRC decisions.¹⁶ To assure that the Commonwealth would have sufficient opportunity to request participation as an interested State, if it so chose, the court stayed the close of the then-ongoing hearing process in the *Pilgrim* and *Vermont Yankee* proceedings for 14 days from the date of issuance of the court’s mandate in the case.¹⁷ Soon thereafter, in May 2008, the Commonwealth filed a notice of intent to participate as an interested State in the *Pilgrim* and *Vermont Yankee* proceedings, enabling the Commonwealth to request that final decisions in those proceedings be stayed pending review of the rulemaking petition.¹⁸

In August 2008, the NRC denied the Commonwealth’s petition for rulemaking.¹⁹ After considering the Commonwealth’s arguments and cited studies, the NRC concluded that the spent fuel pool environmental impacts findings in the GEIS (NUREG-1437), codified in 10 C.F.R. Part 51, Appendix B to Subpart A, Table B-1, “remain valid, both for SFP [spent fuel pool] accidents and for potential terrorist attacks that could result in an SFP fire.”²⁰ The Commonwealth and two other states have sought judicial review of the rulemaking denial.²¹

II. THE COMMONWEALTH’S PETITIONS FOR REVIEW

Currently before the Commission are the Commonwealth’s petitions for review of LBP-08-22 (in the *Pilgrim* proceeding) and LBP-08-25 (in the *Vermont Yankee* proceeding). These are Partial Initial Decisions resolving issues litigated before the *Pilgrim* and *Vermont Yankee* Boards.²² The Commonwealth was not involved in litigating the admitted contentions addressed in the Boards’ decisions, and the petitions for review do not challenge any specific factual or legal finding made in

¹⁵ CLI-07-13, 65 NRC 211, 214-15 & n.16 (2007).

¹⁶ *Massachusetts v. United States*, 522 F.3d 115 (1st Cir. 2008).

¹⁷ *Id.* at 130.

¹⁸ See Commonwealth of Massachusetts’ Notice of Intent to Participate as an Interested State (May 6, 2008) (ADAMS Accession No. ML081350190 in *Vermont Yankee* proceeding; ADAMS Accession No. ML081500531 in *Pilgrim* proceeding).

¹⁹ See Denial of Petitions for Rulemaking, 73 Fed. Reg. 46,204 (Aug. 8, 2008) (the NRC also denied a petition for rulemaking filed by the Attorney General for the State of California, who had raised nearly identical spent fuel pool claims).

²⁰ See *id.* at 46,206.

²¹ The three consolidated cases are pending before the U.S. Court of Appeals for the Second Circuit. See *New York v. NRC*, Nos. 08-3903-ag(L), 08-4833-ag(CON), 08-5571-ag(CON) (2d Cir.).

²² See LBP-08-22, 68 NRC 590 (2008); LBP-08-25, 68 NRC 763 (2008).

LBP-08-22 or LBP-08-25. Indeed, the Commonwealth earlier made clear that it has “no interest” in the contentions of the admitted parties, which are unrelated to its spent fuel pool concerns.²³

Instead, the Commonwealth seeks assurance that “in the event . . . the Commonwealth prevails” in its judicial challenge to the NRC’s rulemaking denial, the judicial result will inform the *Pilgrim* and *Vermont Yankee* license renewal actions.²⁴ The Commonwealth claims that “the NRC cannot, consistent with NEPA, reach final closure on the relicensing” without applying or otherwise taking into account — in the individual renewal proceedings — the court of appeals’ ultimate decision regarding the rulemaking denial.²⁵ Specifically, the Commonwealth states that “[w]hile the NRC has discretion to select a generic rulemaking process to resolve environmental issues in an individual proceeding,” it must assure that the “results of the generic rulemaking process” will be “‘plugged into’ the individual licensing decisions from which the rulemaking issues arose.”²⁶ In short, the Commonwealth claims that because “the NRC’s compliance with NEPA is still subject to pending litigation, it would be improper for the NRC to terminate the [Pilgrim and Vermont Yankee] relicensing proceeding[s] without accounting for this litigation.”²⁷

The Commonwealth requests that the NRC either (1) defer a final decision in the license renewal actions until the rulemaking litigation is completed; or (2) “expressly condition” any Pilgrim or Vermont Yankee license renewal “on compliance with the court ruling.”²⁸ It styles its request as “petitions for review” and seeks reversal of the Board decisions because they are not “conditioned upon, or otherwise properly structured to take account of, the Commission’s new and significant information regarding the risks of SFP accidents, as may be finally determined by the courts.”²⁹

²³ See CLI-08-9, 67 NRC 353, 356 n.16 (2008), citing Reply Brief for Petitioner Commonwealth of Massachusetts at 13 (Nov. 8, 2007) (ADAMS Accession No. ML073250351).

²⁴ See Pilgrim Petition at 3.

²⁵ See *id.*

²⁶ See *id.* at 15-16 (citation omitted).

²⁷ *Id.* at 15. The Commonwealth similarly argues that it would be “arbitrary and capricious” under the Administrative Procedure Act (APA) for the NRC to remove the generic spent fuel pool impacts issue from the licensing proceedings, and “then refuse to ensure it will in fact reconnect and ‘plug in’ the final ruling from the Court on this issue.” *Id.* at 16. It also claims the NRC would violate the Atomic Energy Act (AEA) and NRC regulations if it did not assure that the “final judicial decision on the NRC’s rulemaking process” is taken into account in the licensing actions.” *Id.* at 17.

²⁸ *Id.* at 15.

²⁹ *Id.* at 4.

Entergy and the NRC Staff oppose the petitions for review.³⁰ Both argue that the petitions are not proper appeals because the Commonwealth did not participate on the contentions resolved in the Board decisions. Both further claim that the Commonwealth's request in effect is a motion for a stay of the license renewal proceedings pending judicial review, but that the Commonwealth has made no effort to address the NRC standards for issuance of a stay, found in 10 C.F.R. § 2.342(e). Entergy urges that the Commonwealth "not be permitted to circumvent [NRC] requirements by characterizing its requests as an 'appeal.'" ³¹

We agree that the Commonwealth's petitions are not proper "petitions for review" pursuant to 10 C.F.R. § 2.341. The Commonwealth did not participate on the contentions resolved in the Board decisions, and nowhere indicates that it ever even requested the Boards to stay or condition their final decisions. Nor do the petitions meet — or even address — the NRC standards for a motion for a stay, found in 10 C.F.R. § 2.342(e). The petitions for review in fact challenge nothing the Boards actually decided. Nonetheless, we have reviewed the Commonwealth's petitions, construing them as, in effect, a request for direct Commission action. We address the merits of the Commonwealth's request as an exercise of our ultimate supervisory control over our proceedings.³²

Because NRC license renewal regulations codify environmental impacts conclusions for a number of generically reviewed issues, these issues normally fall outside the scope of individual license renewal proceedings. But our rules recognize the possibility of new and significant information calling into question prior generic findings, and our decisions have consistently pointed to the petition for rulemaking device as one means "to alert the Commission to new . . . information that may render a [GEIS] finding [incorrect]." ³³ Here, virtually from the outset of the *Pilgrim* and *Vermont Yankee* license renewal proceedings, the Commonwealth consistently and timely raised its spent fuel pool impacts concerns. Not long after the license renewal proceedings began, the Commonwealth filed a petition for rulemaking challenging the NRC's generic spent fuel pool analysis, as well as adjudicatory contentions on the same issue. In addition, the Commonwealth timely filed its intent to participate in the renewal proceedings as an interested State,

³⁰ See Entergy's Answer to Commonwealth of Massachusetts Petition for Review of LBP-08-22 (Nov. 24, 2008) ("Entergy's Answer re: LBP-08-22"); NRC Staff's Answer in Opposition to the Commonwealth of Massachusetts' Petition for Review of LBP-08-22 (Nov. 24, 2008); Entergy's Answer to Commonwealth of Massachusetts Petition for Review of LBP-08-25 and Request for Consolidated Ruling (Dec. 11, 2008); NRC Staff's Answer in Opposition to the Commonwealth of Massachusetts' Petition for Review of LBP-08-25 (Dec. 10, 2008).

³¹ *Id.* at 6.

³² See, e.g., *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 237 (2002).

³³ See *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 12, 14-15 (2001).

and in fact has taken every conceivable procedural step to assure that the ultimate outcome of its rulemaking petition (now under judicial review) would inform the NEPA analysis for the *Pilgrim* and *Vermont Yankee* licensing proceedings.

Moreover, while the First Circuit found that the NRC acted reasonably in using a “generic method” of conducting the required NEPA “hard look” at impacts, and in requiring the Commonwealth to raise its NEPA concerns in a rulemaking petition rather than in adjudicatory contentions, the court stressed that what “ensures ultimate compliance with NEPA is judicial review.”³⁴ It was the court’s clear expectation that the Commonwealth, by following the alternate path the NRC set forth, would still have a “*meaningful opportunity*” to seek judicial review of the “results of the . . . rulemaking petition.”³⁵

We gave careful consideration to the Commonwealth’s petition for rulemaking, and we stand by the decision that no new rulemaking proceeding is warranted. But if, contrary to our expectation, the Commonwealth prevails on judicial review, we will respond accordingly, including taking any steps in the *Pilgrim* and *Vermont Yankee* license renewal proceedings called for to assure that the judicial review results are implemented in a “meaningful” way. Entergy recognizes as much: “[i]f the Commonwealth were to ultimately prevail . . . the Commission certainly has the authority to supplement its environmental analysis for Pilgrim [and Vermont Yankee] to comply or be consistent with such a decision.”³⁶

We cannot anticipate in advance of a judicial decision the precise NRC remedies that may be appropriate if the Commonwealth’s challenge prevails. But our commitment to effectuate the court’s conclusion in a fashion respectful of the First Circuit’s views and mindful of the Commonwealth’s long-maintained interests and efforts renders unnecessary the relief the Commonwealth seeks.

If the Court of Appeals issues a decision in favor of the Commonwealth, the Commission will issue an order indicating whether any further steps in these proceedings are necessary.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 4th day of June 2009.

³⁴ See *Massachusetts*, 522 F.3d at 127, 130.

³⁵ See *id.* at 130-31 (emphasis added).

³⁶ See Entergy’s Answer re: LBP-08-22 at 6.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Peter B. Lyons
Dale E. Klein
Kristine L. Svinicki

In the Matter of

Docket No. 50-293-LR

**ENTERGY NUCLEAR GENERATION
COMPANY and ENTERGY NUCLEAR
OPERATIONS, INC.
(Pilgrim Nuclear Power Station)**

June 4, 2009

**MEMORANDUM AND ORDER
(Requesting Additional Briefing)**

This proceeding stems from the application of Entergy Nuclear Generation Company and Entergy Nuclear Operations, Inc. (together, Entergy) to renew the operating license for the Pilgrim Nuclear Power Station for an additional 20 years. The Atomic Safety and Licensing Board issued LBP-08-22, an Initial Decision resolving outstanding issues relating to intervenor Pilgrim Watch's Contention 1, which challenged the Applicant's aging management program for buried piping.¹

Pursuant to 10 C.F.R. § 2.341(b), Pilgrim Watch has filed a petition for Commission review of several Board decisions in this proceeding. Pilgrim Watch seeks review of the Board's Initial Decision in LBP-08-22, and earlier decisions including LBP-07-13, Memorandum and Order (Ruling on Motion to Dismiss Petitioners' Contention 3 Regarding Severe Accident Mitigation Alternatives);² LBP-06-23, Memorandum and Order (Ruling on Standing and Contentions of

¹ 68 NRC 590 (2008). Judge Ann Marshall Young issued a Concurring Opinion on October 31, 2008.

² 66 NRC 131 (2007).

Petitioners Massachusetts Attorney General and Pilgrim Watch);³ as well as “the many interlocutory decisions in this proceeding.”⁴ Both Entergy and the NRC Staff oppose the petition.⁵ For the reasons outlined below, we request additional briefing on one issue and establish a briefing schedule.

Pilgrim Watch’s petition spans several diverse issues. One of Pilgrim Watch’s principal challenges is to LBP-07-13, which dismissed Pilgrim Watch’s contention on severe accident mitigation alternatives (SAMA) — Contention 3. As admitted, the contention challenged the “input data” for evacuation, economic, and meteorological information:

Applicant’s SAMA analysis for the Pilgrim plant is deficient in that the input data concerning (1) evacuation times, (2) economic consequences, and (3) meteorological patterns are incorrect, resulting in incorrect conclusions about the costs versus benefits of possible mitigation alternatives, such that further analysis is called for.⁶

In LBP-07-13, a Board majority granted Entergy’s motion for summary disposition of Contention 3. In support of its Motion, Entergy submitted a report by Washington Safety Management Solutions, and explained that it performed “a series of sensitivity studies to evaluate the effects of changes in the input parameters challenged by Pilgrim Watch on the results of the SAMA analysis.”⁷ Entergy argued that the sensitivity studies showed that the effect of wide ranging changes to the challenged input parameters is “negligible and immaterial to the results of the SAMA analysis.”⁸

³ 64 NRC 257 (2006).

⁴ See Pilgrim Watch’s Petition for Review of LBP-06-848 [*sic*], LBP-07-13, LBP-06-23 and the Many Interlocutory Decisions in the Pilgrim Nuclear Power Station Proceeding (Nov. 12, 2008) (Pilgrim Petition) at 1. Additional Board decisions challenged in Pilgrim Watch’s petition include LBP-07-12, 66 NRC 113 (2007), Memorandum and Order (Ruling on Entergy’s Motion for Summary Disposition of Pilgrim Watch Contention 1, Regarding Adequacy of Aging Management Program for Buried Pipes and Tanks and Potential Need for Monitoring Wells to Supplement Program); Order (Revising Schedule for Evidentiary Hearing and Responding to Pilgrim Watch’s December 14 and 15 Motions) (Dec. 19, 2007) (unpublished); Order (Denying Pilgrim Watch’s Motion for Reconsideration) (Jan. 11, 2008) (unpublished); and Memorandum and Order (Ruling on Pilgrim Watch Motions Regarding Testimony and Proposed Additional Evidence Relating to Pilgrim Watch Contention 1) (June 4, 2008) (unpublished).

⁵ See NRC Staff’s Answer in Opposition to Pilgrim Watch’s Petition for Review of LBP-08-22, LBP-07-13, LBP-06-23 and Interlocutory Decisions (Nov. 24, 2008); Entergy’s Answer Opposing Pilgrim Watch’s Petition for Review (Nov. 24, 2008).

⁶ LBP-06-23, 64 NRC at 341.

⁷ LBP-07-13, 66 NRC at 138 (*quoting* Entergy’s Motion for Summary Disposition of Pilgrim Watch Contention 3 (May 17, 2007) at 10).

⁸ *Id.*

After considering the results of Entergy's additional analysis and Pilgrim Watch's response, a Board majority concluded that there no longer remained "any material fact over which there is a genuine issue."⁹ Specifically, the Board found that the evidence before it simply was "not susceptible to different interpretations or inferences" that might support a finding "that any particular SAMA could become cost-effective," and therefore there was no utility to proceeding to "a trial on the merits."¹⁰ The Board concluded that Pilgrim Watch failed to contradict Entergy's position that for any of the alleged flaws in Entergy's SAMA analysis to change the estimated benefit of implementation, the change in benefit would have to be nearly 100%, but that the maximum change from correcting the alleged flaws would be on the order of only 2%.¹¹ Of note, the majority repeatedly rejected Pilgrim Watch arguments challenging particular modeling methods Entergy used. The majority stressed that in admitting Contention 3, the Board had explicitly excluded from the contention's scope all challenges to probabilistic modeling.¹²

Judge Young dissented, concluding that the majority had improperly weighed evidence at the summary disposition stage, and further improperly excluded a challenge to Entergy's use of a "straight-line Gaussian plume model" — a model used to estimate the atmospheric dispersion of radionuclides which is "put in" to the MACCS2 (MELCOR Accident Consequence Code System 2) computer code "to produce results about meteorological patterns."¹³ The dissent stated that while in admitting Contention 3 the Board had barred any challenge "*on a generic basis* [to] the use of probabilistic techniques that evaluate risk," it had not excluded "*specific* challenges that might bring into question specific aspects of the SAMA analysis," such as challenges to the straight-line Gaussian plume model and the "adequacy of the MACCS2 code *as specifically applied with regard to the Pilgrim plant's SAMA analysis.*"¹⁴ The dissent states, for example, that the contention's meteorological arguments "centrally involved" challenges to the use of a straight-line Gaussian plume model to assess meteorological patterns, and that by excluding challenges to the Gaussian model from the contention, the majority rendered the contention "meaningless with regard to meteorological issues."¹⁵

Both in opposing summary disposition and now in its petition for review,

⁹ *Id.* at 154.

¹⁰ *Id.*

¹¹ *Id.* at 147.

¹² *See id.* at 143, 146, 148-51.

¹³ *See id.*, 66 NRC at 161; *see also id.* at 156.

¹⁴ *See id.* at 161-62 (emphasis in original).

¹⁵ *Id.*

Pilgrim Watch challenges the use of a straight-line Gaussian plume model¹⁶ to estimate the atmospheric dispersion of radionuclides at the Pilgrim site. Pilgrim Watch claims that “a variable trajectory plume model — not a straight-line Gaussian plume — is appropriate for Pilgrim’s coastal location and would bring more SAMAs into play.”¹⁷ Pilgrim Watch argues that “no matter how many different straight-line Gaussian inputs the Applicant’s experts may [have] used in their simulations, the output will not reflect what actually will happen at this specific site” because “sensitivity studies do not add useful information if the primary model is flawed.”¹⁸ Pilgrim Watch maintains that it “demonstrated” that use of the “straight line steady state Gaussian plume model leads to a non-conservative geographical distribution of dose within the 50 mile radius of Pilgrim.”¹⁹ Pilgrim Watch also claims that the MACCS2 computer modeling code Entergy used is not “the proper diagnostic tool to assess economic consequences.”²⁰ Pilgrim Watch argues that the majority improperly weighed evidence and improperly excluded its specific modeling-related challenges, such as its challenge to Entergy’s use of a straight-line Gaussian plume model.

Notably, however, while the Board majority in LBP-07-13 rejected challenges to “the modeling used” in the SAMA analyses, it also concluded that Gaussian plume model results are “generally more conservative than the results obtained by more sophisticated models, . . . and the MACCS2 code was conservatively applied to the Pilgrim SAMA analysis to cause it to produce overall conservative results.”²¹ Significantly, the majority concluded that there was “uncontroverted testimony indicating that the Applicant’s analyses *maximize* the effects of the radiation carried by the meteorological pattern in each of the hundreds of particular scenarios computed.”²² In short, the Board majority found that Pilgrim Watch presented no evidence contradicting Entergy’s assertion that correcting the alleged flaws would fall short of making a single additional SAMA cost beneficial.²³

But the dissent states that it would have inquired further into “the conservatisms in the MACCS2 code and its application,” and that while “[i]t may

¹⁶ As described in the Pilgrim Supplemental Environmental Impact Statement (SEIS), the MACCS2 Gaussian plume model “accounts for the direction of the wind at the beginning of the plume release, but does not account for subsequent changes in wind direction for that particular plume segment.” See NUREG-1437, “Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 29, Final Report” (July 2007) (SEIS), Vol. 2, Appendix G at G-19.

¹⁷ See Pilgrim Petition at 15.

¹⁸ *Id.* at 16 (internal quotation and citation omitted).

¹⁹ See *id.* at 15.

²⁰ *Id.* at 18.

²¹ See LBP-07-13, 66 NRC at 151.

²² *Id.* (emphasis added).

²³ *Id.* at 147.

be that the Gaussian model used in the MACCS2 code and in Entergy's sensitivity analysis is so conservative that the information provided by intervenors' experts is effectively irrelevant, . . . this requires a weighing of the evidence in a hearing.'²⁴ The judges disagree over whether Pilgrim Watch experts provided *specific* information disputing the conclusions in Entergy's motion for summary disposition.²⁵

We find that sufficient legal and factual questions have been raised to warrant a closer look at the existing record and request the parties to provide additional briefs.

At bottom the question is whether Pilgrim Watch provided support for its claim that there is a genuine *material* dispute — that is, a dispute that could lead to a different conclusion on potential cost-beneficial SAMAs. The Commission has long stressed that NRC adjudicatory hearings are not "EIS editing sessions."²⁶ The ultimate concern here is whether any additional SAMA should have been identified as potentially cost-beneficial, not whether further analysis may refine the details in the SAMA NEPA analysis.

On this issue, the parties' briefs should address the following questions based solely on the existing adjudicatory record:

1. In granting summary disposition, was it appropriate for the Board majority to exclude challenges to the use of particular methodologies, such as the use of the straight-line Gaussian plume model to predict the atmospheric dispersion of radionuclides, or the use of the MACCS2 code for determining economic costs?²⁷
2. Did Pilgrim Watch present a supported, genuine dispute that could materially affect the ultimate conclusions of the SAMA cost-benefit analysis? For example, discuss evidence or testimony presented on (1) whether use of a variable trajectory model could materially affect whether any additional SAMA may be cost-beneficial; (2) the conservatism of the Gaussian plume model and the MACCS2 code (including the economic model) as applied in the cost-benefit analysis; and (3) whether the cost-benefit analysis "subsumes all reasonably possible meteorologic patterns."²⁸

²⁴ *Id.* at 166 n.51.

²⁵ *Compare, e.g., id.* at 149-52 with *id.* at 162-63.

²⁶ *See, e.g., Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 431 (2003).

²⁷ We note that in the ongoing *Indian Point* license renewal proceeding, the Board admitted a contention challenging a particular use of a straight-line Gaussian air dispersion model in the applicant's SAMA analysis. *See Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Station, Units 2 and 3), LBP-08-13, 68 NRC 43, 110-13 (2008).

²⁸ *See* LBP-07-13, 66 NRC at 151.

Initial briefs are limited to 25 pages, exclusive of title page, table of contents, or table of authorities, and shall be filed within 21 calendar days of the date of this Order. Responsive briefs may be filed within 10 calendar days of the initial briefs' filing, and are limited to 10 pages.

We also caution the parties to make their arguments clearly. The Commission should not be expected to “sift unaided through” earlier briefs or other documents filed before the Board “to piece together and discern” a party’s argument and the grounds for its claims.²⁹ Submissions shall be limited to affidavits and exhibits already in the record. References to such affidavits and other exhibits should include page citations.

In addition to challenging the dismissal of Contention 3, Pilgrim Watch raises several other issues in its Petition for Review. We will resolve these other matters — including determining whether any issue(s) warrants review — based upon the briefs and record now before us.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 4th day of June 2009.

²⁹ See *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 46 (2001).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Peter B. Lyons
Dale E. Klein
Kristine L. Svinicki

In the Matter of

Docket No. 40-8943-MLA

CROW BUTTE RESOURCES, INC.
(North Trend Expansion Project)

June 25, 2009

CONTENTIONS: ADMISSIBILITY

The Commission defers to the Board's determinations on the admissibility of contentions unless we find an error of law or abuse of discretion. *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 104 (2007); *see also AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006); *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 118 (1998).

STANDING

The Commission gives the Board's judgment on determinations of standing "substantial deference" absent a "clear misapplication of facts or law." *Sequoia Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 14 (2001); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 324 (1999).

STANDING

The Board did not act unreasonably in basing standing on potential harm from

new operation that would be similar to harm petitioner claims he has suffered from existing operation.

STANDING

Requirement to show “distinct new” harm from a license amendment application would not preclude standing to contest commencement of new operations at a separate site, where petitioner showed potential for harm to himself from new operation.

STANDING

The Commission is “not inclined to disturb the Licensing Board’s judgment on standing,” “[a]bsent a gross misapplication of the facts or applicable law.” *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994). The Commission found no “gross misapplication” of facts or applicable law in the Board’s finding that petitioners had met their burden to show a “plausible chain of causation” of possible harm.

STANDING

Proximity alone does not suffice for standing in materials licensing cases. *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 117 n.1 (1998).

APPEALS

The Commission does not entertain on appeal arguments not raised before the Board. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139-40 (2004). *See also USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 458 (2006); *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-00-8, 51 NRC 227, 243 (2000). The Commission cannot find “clear error” in the Board’s failing to acknowledge an argument that was not brought to its attention and to which the petitioners had no opportunity to respond.

CONTENTIONS: LATE FILING

A late-filed document that supports or provides a basis for a proposed contention should be considered using the late-filing factors of 10 C.F.R. §§ 2.309(c) and 2.309(f)(2).

CONTENTIONS: LATE FILING

Where a document relevant to the licensing proceeding was available on the agency public document management system, but not indexed by license number, the Board did not act unreasonably in finding that late-filing factors weighed in favor of the party seeking to introduce the document as late support for an otherwise timely contention.

CONTENTIONS

A licensing board may reformulate contentions to “eliminate extraneous issues or to consolidate issues for a more efficient proceeding.” *Shaw AREVA MOX Services* (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 482 (2008) (emphasis omitted). (*See id.* at 481-83 for a discussion of the board’s legal authority to reformulate contentions).

CONTENTIONS

A board may not add material not raised by a petitioner in order to render a contention admissible. *Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 720-21 (2006). *See also Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991).

NEPA

NATIONAL HISTORIC PRESERVATION ACT (NHPA)

NEPA and the National Historic Preservation Act required NRC Staff to consult with interested Indian tribes as part of its review of the application. The fact that reviews had not yet taken place at the time the application was filed did not reflect a deficiency in the application. Absent a genuine dispute over the sufficiency of the application, the contention was inadmissible.

CONTENTIONS, LATE FILED

NEPA

Our rules of procedure explicitly allow the filing of a new contention on the basis of the draft or final environmental impact statement where that document contains information that differs “significantly” from the information that was previously available. *See* 10 C.F.R. § 2.309(f)(2) (providing that, with respect to issues arising under NEPA, the petitioner may file new contentions “if there are data or conclusions in the NRC draft or final environmental impact statement

. . . that differ significantly from the data or conclusions in the applicant's documents'). See *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 351 (2009).

CONTENTIONS, LATE FILED

The Board erred when it disregarded the rule that a reply cannot expand the scope of the arguments set forth in the original hearing request. New bases may not be introduced in a reply brief unless they meet the late-filing criteria set forth in our regulations. See *Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006).

CONTENTIONS: SCOPE OF PROCEEDING

Petitioners' claim that a foreign-owned company would be more likely than a U.S.-owned company to export its product overseas fell outside the scope of the proceeding, where the applicant had not applied for a license to export recovered uranium.

MATERIALS LICENSES

Our regulations do not prohibit issuance of a materials license to a licensee wholly owned by a foreign parent. See *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC at 361.

MEMORANDUM AND ORDER

Today we consider appeals by the NRC Staff and the Applicant, Crow Butte Resources, Inc. (Crow Butte) of two Atomic Safety and Licensing Board decisions. The NRC Staff and Crow Butte appeal LBP-08-6, granting a hearing to several petitioners with respect to Crow Butte's license amendment application.¹ The Staff and Crow Butte further appeal LBP-09-1, which admitted a contention relating to Crow Butte's ownership by a foreign parent corporation, and which also added a new basis relating to the health effects of arsenic to a previously admitted contention.²

We affirm, in part, the Board's grant of a hearing on Contentions A and B, and reformulate the revised contention accordingly. We reverse the Board's

¹ LBP-08-6, 67 NRC 241 (2008).

² LBP-09-1, 69 NRC 11 (2009).

decision to admit Contention C, relating to the consultations with Indian Tribes, and Contention E, relating to the Applicant's foreign ownership. In addition, we reverse the Board's decision to admit a new basis, relating to the health effects of arsenic exposure, to previously admitted Contention B. Finally, we decline to direct the Board to apply the formal hearing procedures of 10 C.F.R. Part 2, Subpart G, to this matter.

I. BACKGROUND

Crow Butte operates an *in situ* leach (ISL) uranium recovery facility in Crawford, Nebraska, and has submitted an application to expand operations into an area known as the North Trend Expansion Area (NTEA). ISL uranium recovery involves injecting a leach solution into an underground ore body, letting the solution flow through the ore body to dissolve uranium, and pumping the solution back out of the ground in order to extract the uranium from the solution. In addition to the dissolved uranium, the solution can mobilize other elements, including arsenic, thorium, and radium. Uranium recovery operations in the NTEA are proposed to be in a geologic formation called the Basal Chadron Sandstone, which is below — and, according to Crow Butte, reliably separated from — the Brule Formation, the aquifer from which the local water supply is drawn.

Numerous petitioners filed substantially identical *pro se* intervention petitions in November 2007.³ The various petitioners⁴ subsequently retained counsel who filed a single “Reference Petition,” consolidating their claims, in December 2007.⁵ A “Corrected Reference Petition” was filed on January 9, 2008, and is the document to which we will refer throughout this decision.⁶

³ See Request for Hearing and/or Petition to Intervene, Western Nebraska Resources Council (Nov. 12, 2007); Request for Hearing and/or Petition to Intervene, Chadron Native American Center, Inc. (Nov. 12, 2007); Request for Hearing and/or Petition to Intervene, Owe Aku/Bring Back the Way (Nov. 12, 2007); Request for Hearing and/or Petition to Intervene, Debra White Plume (Nov. 12, 2007); Request for Hearing and/or Petition to Intervene, High Plains Community Development Corp. (Nov. 12, 2007) (subsequently withdrawn); Request for Hearing and/or Petition to Intervene, Slim Buttes Agricultural Development Corp. (Nov. 12, 2007); Request for Hearing and/or Petition to Intervene, Thomas Kanatakeniate Cook (Nov. 12, 2007).

⁴ The Board eventually found standing for three petitioners: Owe Aku/Bring Back the Way (Owe Aku), Debra White Plume, and Western Nebraska Resources Council (WNRC) (collectively, Petitioners).

⁵ See Thomas K. Cook, Debra White Plume, Owe Aku, Slim Buttes Agricultural Development Corp., and Western Nebraska Resources Council, Reference Petition (Dec. 28, 2007).

⁶ Thomas K. Cook, Debra White Plume, Owe Aku, Slim Buttes Agricultural Development Corp., and Western Nebraska Resources Council, Corrected Reference Petition (Jan. 9, 2008).

On January 16, 2008, oral argument on standing and contention admissibility was held in Chadron, Nebraska. The Staff joined Crow Butte in arguing that none of the Petitioners had demonstrated standing or had submitted an admissible contention.⁷

At the January 16 oral argument, Petitioners offered two previously unreferenced documents which they claimed supported the argument that there could be mixing between the groundwater in the Basal Chadron and the Brule aquifers. One of these documents, referred to as “Exhibit B,” is a letter from the Nebraska Department of Environmental Quality (NDEQ) to Crow Butte concerning Crow Butte’s application for an aquifer exemption relating to the NTEA project.⁸ Exhibit B included a nineteen-page preliminary analysis concluding that Crow Butte had not adequately supported its request for an aquifer exemption for NTEA operations. Among other things, the NDEQ stated in Exhibit B that Crow Butte had not shown that the impermeable layers that confine the mined aquifer and prevent mixing with the Brule are continuous throughout the NTEA.⁹

In LBP-08-6, the Board accepted Exhibit B as additional support for both standing and admissibility of two of Petitioners’ reformulated contentions. It rejected as untimely the other document Petitioners submitted at the January 16 oral argument (“Exhibit A”).¹⁰

The Petitioners whom the Board admitted as parties — Owe Aku, Debra White Plume, and WNRC — contend that contamination in the Basal Chadron stemming from Crow Butte’s proposed expanded operation could reach them through various pathways. The Board found WNRC demonstrated representational standing through a member of the organization, Dr. Francis E. Anders, whose well draws directly from the Basal Chadron about a mile and a half outside the NTEA

⁷ The Staff initially challenged the standing of all Petitioners on the basis of the arguments and supporting documents submitted on their behalf as of December 7, 2007. *See* NRC Staff Combined Response in Opposition to Petitioners’ Requests for Discretionary Intervention and Petitions for Hearing and/or to Intervene of Debra White Plume, Thomas Cook, Owe Aku/Bring Back the Way, Chadron Native American Center, High Plains Development Corporation, Slim Buttes Agricultural Development Corporation, and Western Nebraska Resources Council (Dec. 7, 2007).

⁸ Letter, Steven A. Fischbein, NDEQ, to Stephen P. Collings, President, Crow Butte Resources, Inc., Re: Technical Review of Aquifer Exemption Petition for North Trend Expansion (Nov. 8, 2007), ADAMS Accession No. ML073300399 (Exhibit B).

⁹ *See, e.g., id.* at 11.

¹⁰ LBP-08-6, 67 NRC at 255-60. Exhibit A consisted of a January 14, 2008 e-mail from Hannan E. LaGarry, a geologist with the University of Nebraska, to Buffalo Bruce, Board Chairman of WNRC, relating to the geology of the surrounding area. A copy is attached to Petitioners Combined Reply to NRC Staff’s and Applicant’s Responses to Exhibits A and B (Feb. 15, 2008). Applying the standards for late-filed contentions under 10 C.F.R. § 2.309(c) and (f), the Board concluded that the e-mail contained no new information, as it only cited sources that had been published, in some cases, “years earlier.” *Id.* at 258. Petitioners have not challenged Exhibit A’s exclusion; that ruling is not at issue here.

boundary.¹¹ The Board found two other petitioners to have standing based on a theory that contamination in the Basal Chadron could mix with the Brule aquifer through faults in the geological “confining layers,” either within or outside the NTEA.¹² Applying this theory, the Board ruled Owe Aku had standing as representative of its member, David Alan House, who uses a well that draws from the Brule aquifer approximately 8 miles south-southwest of the NTEA. The Board found that a third petitioner, Debra White Plume, who lives 60 miles from the NTEA, had standing based on the “mixing theory” and on her use of the White River in the Pine Ridge Indian Reservation for fishing. The Board observed that the White River drains from the NTEA, and also may be in communication with the Brule and Basal Chadron aquifers.¹³

The Board rejected the standing claims of two other petitioners on the grounds that neither showed enough detail about how or when they might come in contact with water potentially contaminated by Crow Butte’s operations.¹⁴

In LBP-08-6, the Board admitted three contentions, which were derived from what it determined were the admissible portions of the contentions as pled in Petitioners’ Corrected Reference Petition. First, for “analytical clarity,” the Board reshuffled the groundwater-quality claims found in proposed Contentions A and B into one “environmental” and one “safety” contention and reformulated them as follows:

Contention A. [Crow Butte’s] License Amendment Application does not accurately describe the environment affected by its proposed mining operations or the extent of its impact on the environment as a result of its use and potential contamination of water resources, through mixing of contaminated groundwater in the mined aquifer with water in surrounding aquifers and drainage of contaminated water into the White River.

Contention B. [Crow Butte’s] proposed expansion of mining operations will use and contaminate water resources, resulting in harm to public health and safety, through mixing of contaminated groundwater in the mined aquifer with water in surrounding aquifers and drainage of contaminated water into the White River.

The Board also redrafted proposed Contention C to focus on a consultation requirement that it found under the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA):

¹¹ See LBP-08-6, 67 NRC at 281 n.191.

¹² See discussion *infra* Section II.C.2.b.ii.

¹³ LBP-08-6, 67 NRC at 289.

¹⁴ *Id.* at 284-88 (finding that Slim Buttes Agricultural Development Corp. and Thomas Kanatakeniate Cook had failed to establish standing). Neither petitioner has appealed the Board’s finding.

Contention C. Reasonable consultation with Tribal Leaders regarding the prehistoric Indian camp located in the area surrounding [Crow Butte's] proposed North Trend Expansion Project has not occurred as required under NEPA and the National Historic Preservation Act.¹⁵

The Board rejected outright two proposed contentions, proposed Contention D (risks associated with terrorist-induced transportation accidents)¹⁶ and proposed Contention F (economic benefits are not shared with local communities).¹⁷

In LBP-08-6, the Board also reserved ruling on two matters pending further briefing: proposed Contention E, concerning whether Crow Butte's foreign ownership precludes it from holding the subject license, and whether the hearing should be held under the formal procedures found in Subpart G of our rules of procedure.¹⁸ The parties briefed these issues extensively¹⁹ before the Board resolved both issues in LBP-09-1.

In LBP-09-1, the Board admitted Contention E, regarding the issue of the impacts of Crow Butte's ownership by a Canadian parent corporation. In addition, the Board found that it did not have the authority to order the proceeding to be held

¹⁵ *Id.* at 344.

¹⁶ *Id.* at 333-34.

¹⁷ *Id.* at 341-42.

¹⁸ Both the Staff and Crow Butte filed appeals of LBP-08-6 before the Board ruled on the admissibility of Contention E. NRC Staff's Notice of Appeal of LBP-08-06, Licensing Board's Order of April 29, 2008, and Accompanying Brief (May 9, 2008) (Staff Appeal of LBP-08-6), Crow Butte Resources' Brief in Support of Appeal from LBP-08-06 (May 9, 2008) (Crow Butte Appeal of LBP-08-6). The Staff's appeal sought, among other things, a declaratory Commission ruling on the admissibility of proposed Contention E. Ordinarily, such a premature request would be improper. However, the Board has now ruled on all issues raised in the intervention petitions, and all issues have been fully briefed. In the interest of efficiency, we exercise our discretion to rule on the questions of standing and contention admissibility based on the briefs before us.

¹⁹ See Petitioners' Brief Concerning Contention E and Subpart G (May 23, 2008); NRC Staff Response to Board's Order of April 29, 2008 (May 23, 2008); Applicant's Brief Regarding Foreign Ownership Issues (May 23, 2008); NRC Staff Response to Petitioners' Brief on Foreign Ownership and Subpart G (June 9, 2008); Applicant's Consolidated Response Regarding Foreign Ownership and Hearing Procedures (June 9, 2008); Petitioners' Consolidated Response to the NRC Staff's and Applicant's Replies Regarding Foreign Ownership and Subpart G (June 16, 2008). The Board heard oral argument on these issues on July 23, 2008. See also Petitioners' Post-Argument Submission Re: NDEQ Consent Decree (Aug. 15, 2008); NRC Staff's Response to Board's Order of August 5, 2008 (Aug. 15, 2008); Applicant's Response to Board Order Regarding Standing (Aug. 15, 2008); Petitioners' Reply to Applicant's and NRC Staff's Responses to Post-Argument Submission Re: NDEQ Consent Decree (Aug. 29, 2008); Applicant's Response to NRC Staff's Response to Board's Order of August 5, 2008 (Aug. 29, 2008); Petitioners' Response to NRC Staff and Applicant's Responses Dated August 29, 2008 to August 19th Order (Sept. 8, 2008); Applicant's Reply to Petitioners' Brief on Export Licensing (Sept. 8, 2008). Our rules of practice provide the immediate right to appeal a Board ruling selecting a hearing procedure. See 10 C.F.R. § 2.311(d).

under Subpart G (our formal hearing procedures), as the Intervenors requested.²⁰ It recommended, however, that the Commission direct the proceeding to use Subpart G procedures because discovery, live testimony, and cross-examination would give the process more transparency and could be beneficial to resolving certain issues.²¹

The Board also ruled that Petitioners may litigate, as part of already-admitted Contention B, their claim that arsenic released offsite as a result of Crow Butte's licensed operations will lead to increases in diabetes and pancreatic cancer in exposed individuals.²²

II. DISCUSSION

As discussed further below, we do not disturb the Board's rulings on standing. We find, however, that the Board abused its discretion in its treatment of Contentions A and B — by not confining those contentions to defined and material bases — and erred as a matter of law in admitting Contention C at all. We further find that Contention E is outside the scope of this proceeding and that the Board erred in admitting it for hearing. In addition, insofar as the Board's new "basis" for Contention B seeks to litigate asserted links between arsenic, diabetes, and pancreatic cancer, it is outside the scope of the proceeding.

A. Standard of Review

We give the Board's judgment on determinations of standing "substantial deference" absent a "clear misapplication of facts or law."²³ Similarly, we defer to the Board's determinations on the admissibility of contentions unless we find an error of law or abuse of discretion.²⁴

²⁰ LBP-09-1, 69 NRC at 47.

²¹ *See id.* at 47-51. Although it made a recommendation, the Board expressly did not refer this ruling to the Commission. *See generally* 10 C.F.R. § 2.323(f)(1).

²² *Id.* at 46. Petitioners attempted to introduce this claim as a new contention based on a recent study showing that exposure to low levels of arsenic is associated with an increase of diabetes. Petition for Leave to File New Contention Re: Arsenic (Sept. 22, 2008) (Arsenic Petition), citing Ana Navas-Acien *et al.*, *Arsenic Exposure and Prevalence of Type 2 Diabetes in US Adults*, 300 J. Am. Med. Assn. 814 (2008) (Arsenic Study).

²³ *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 14 (2001); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 324 (1999).

²⁴ *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 104 (2007); *see also AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station),
(Continued)

B. Standing

Crow Butte contests the standing of each petitioner. The NRC Staff does not dispute the standing of WNRC, but argues that the other two Petitioners — Debra White Plume and Owe Aku — have not shown standing.

1. *Standing of Western Nebraska Resources Council (WNRC)*

WNRC claims representational standing based on the affidavit of one of its members, Dr. Francis E. Anders, who lives about a mile from the current Crow Butte recovery operation and 1.5 miles from the proposed expansion area.²⁵ Dr. Anders' well — which he and his family use for drinking, bathing, irrigation, and stock water — draws from the Basal Chadron. Dr. Anders' affidavit states that since Crow Butte began drilling about 1 mile from his house in Fall 2007, he has noticed a bad odor and discoloration in his well water.²⁶ According to Dr. Anders, Crow Butte workers begin drilling each Monday, and by Wednesday his well water becomes discolored. He states that the workers stop drilling for the weekend and his well water is clear again by Monday, when the cycle begins anew.²⁷

The Board found that the apparent injury caused by the existing operation, approximately 1 mile from Dr. Anders' house, suggested that identical operations occurring 1.5 miles from his house could cause a similar injury.²⁸ Taken with the fact that the uranium recovery operations will occur in the same aquifer from which Dr. Anders' well draws water, the Board found the potential for injury “plausible.”²⁹

Crow Butte offers both a legal argument and a fact-based argument why Dr. Anders has not shown standing. Crow Butte first argues that, as a matter of law, Dr. Anders cannot base standing on mere proximity to the site, but must show a “plausible chain of causation” between the licensed activity and potential harm to himself.³⁰ In addition, Crow Butte cites our holding in *White Mesa*,³¹ an earlier

CLI-06-24, 64 NRC 111, 121 (2006); *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 118 (1998).

²⁵ Affidavits of Dr. Anders, Bruce McIntosh, Janet Minz, and Beth Ranger, of the Western Nebraska Resources Council, and of Joseph R. American Horse and Thomas K. Cook, of Slim Buttes Agricultural Development Corp.; were filed together with the December 28, 2007 Reference Petition.

²⁶ See Affidavit of Francis E. Anders (Dec. 28, 2007).

²⁷ *Id.* at 1.

²⁸ LBP-08-6, 67 NRC at 282.

²⁹ *Id.*

³⁰ Crow Butte Appeal of LBP-08-6 at 12-13.

³¹ *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 251 (2001).

in situ leach uranium recovery case, for the proposition that Dr. Anders must show that the license amendment will cause a “distinct new harm or threat” apart from the activities already licensed.³² Therefore, the argument goes, Dr. Anders cannot use his claim that the existing operations affect his water quality to show that expanded operations would also have the potential to harm him.

The Board did not base standing on the existing “harm,” *per se*, but on the argument that if the existing operation disrupts Dr. Anders’ well, then it tends to prove that the new operation has the potential to further affect water quality in the well. For that reason, we do not find the holding in *White Mesa* particularly instructive.³³ In *White Mesa*, we found that in the case of an ongoing operation, a petitioner would have to show that the license amendment sought would cause a “distinct new” harm to himself to gain standing. But *White Mesa* involved a mill that was merely seeking an amendment to use a different feedstock at its ongoing operation. Crow Butte’s current application seeks more than simply to continue its ongoing operation — it seeks to commence operations on a separate site 5 to 8 miles away.³⁴ By comparison, if the applicant were a separate legal entity asking for a license to commence ISL uranium recovery operations on the NTEA site, it could not successfully argue that Dr. Anders had no standing to raise concerns about potential impacts to his well water simply because an existing ISL operation on the other side of his property was already causing similar harm.

Crow Butte argues it is impossible as a factual matter that either the existing or proposed Crow Butte operations would have any effect on Dr. Anders’ well. Crow Butte acknowledges that Dr. Anders’ well is in the same aquifer that it intends to mine.³⁵ But it claims, for example, that the water from the Basal Chadron is naturally odorous (sulfurous),³⁶ and that a “comparison of baseline water quality data taken 25 years ago from the Anders well to water quality data taken last year shows no difference in water quality.”³⁷ Similarly (while criticizing Dr. Anders’ failure to provide expert evidence to show how contamination from the NTEA operations could get to his well), Crow Butte cites its own attorney’s statements at oral argument for the proposition that the groundwater in the Basal Chadron only flows at 10 feet per year.³⁸ Crow Butte argues that “there are no expert affidavits supporting the standing declaration,” but it cites no authority in our regulations or case law that such expert testimony is required. *White Mesa* does not hold that

³² See Crow Butte Appeal of LBP-08-6 at 11-12.

³³ In *White Mesa*, the Presiding Officer found no standing, and the Commission deferred to that finding. *White Mesa*, CLI-01-21, 54 NRC at 252.

³⁴ Tr. 156.

³⁵ See Crow Butte Appeal of LBP-08-6 at 13 n.6.

³⁶ See *id.* at 14.

³⁷ See *id.*

³⁸ *Id.* at 14, citing Tr. 156-57.

a petitioner must provide expert testimony in support of his ‘‘plausible scenario’’ for injury, and we find no basis for any such proposition.³⁹

Crow Butte also argues that the Board ‘‘ignored’’ the fact that the weekly cycle that Dr. Anders describes could not be attributable to its operations, because its operations are conducted ‘‘24/7’’ rather than on a weekly basis.⁴⁰ But this argument appears to be entirely new on appeal. Crow Butte does not cite to a pleading or transcript where it presented this factual argument to the Board.⁴¹ We do not entertain on appeal arguments not raised before the Board.⁴² We decline to find that the Board ‘‘clearly erred’’ in ignoring a matter that was not brought to its attention and to which Petitioners had no opportunity to respond.

The right of WNRC to represent the interest of its member, Dr. Anders, is also not in dispute. We see no clear error in the Board’s finding of standing with respect to WNRC.

2. Standing of Debra White Plume and Owe Aku

The standing of the two remaining Petitioners, Debra White Plume and Owe Aku, presents a more complicated inquiry. Ms. White Plume lives approximately 60 miles away from the NTEA, and fishes in the White River. She offered various bases for standing, but the Board focused on her concern that operations in the expansion area could contaminate the White River. The Board noted two court cases where plaintiffs living 25 and 100 miles downstream of a point source of contamination had successfully sued for damages,⁴³ indicating to the Board that

³⁹ See *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 210 n.13 (1998), citing *Sequoyah Fuels Corp. and General Atomic* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 71-77 (1994) (*Sequoyah Fuels* rejected licensee’s argument that petitioner must provide technical studies showing he could use the groundwater on his property in order to demonstrate standing to complain of possible groundwater contamination from licensee’s operation).

⁴⁰ Crow Butte Appeal of LBP-08-6 at 13.

⁴¹ A search of the transcript did not show any instance where Crow Butte raised this at oral argument. Crow Butte’s response to Dr. Anders’ affidavit did not raise this point. See Applicant’s, Crow Butte Resources, Inc., Response to Affidavits (Jan. 4, 2008), at 2-3. Nor did its appellate brief cite any support for this factual assertion.

⁴² *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139-40 (2004). See also *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 458 (2006); *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-00-8, 51 NRC 227, 243 (2000).

⁴³ LBP-08-6, 67 NRC at 286-87, citing *Arizona Copper Co. v. Gillespie*, 230 U.S. 46, 52 (1913) (farmer 25 miles downstream could sue to enjoin mining company from depositing ‘‘slimes, slickens and tailings’’ into stream used for irrigation); *Hale v. Colorado River Municipal Water District*, 818 S.W.2d 537, 538-39 (Tex. 1991) (release of chlorides into river 100 miles upstream destroyed farmer’s peanut crop).

60 miles was not so great a distance as to make harm to Ms. White Plume from Crow Butte's operations "implausible."⁴⁴

Owe Aku is an organization formed to "preserve and revitalize the Lakota way of life,"⁴⁵ which claimed representational standing through four members. The Board focused its analysis of Owe Aku's standing on one member, David Alan House, who lives approximately 8 miles from the site and who draws water from a well in the Brule aquifer for domestic use.⁴⁶ The Board found that Petitioners had shown through Exhibit B that mixing between the Basal Chadron and the Brule aquifers within the NTEA was possible, so that it was at least plausible that Mr. House could be adversely affected by pollution of his well.⁴⁷

The NRC Staff joined Crow Butte in challenging the standing of these two Petitioners. The Staff argues that the Board used an overbroad construction of the "plausible chain of causation" standard. This standard requires not that the potential harm to petitioner flow directly from the proposed action, but that the petitioner show the chain of causation is plausible.⁴⁸ But the Staff argues that Ms. White Plume and Owe Aku failed to make an affirmative showing of how contamination from the proposed operation could reach them. For example, the Staff argues that Mr. House did not present evidence that the hydraulic gradient from the proposed operation flows toward his property.⁴⁹ Instead, Petitioners relied on showing that the Applicant failed to prove that its operation could not harm them.⁵⁰ The Staff concludes that the Board effectively found standing where there is only a "possible," rather than a "plausible," chain of causation.⁵¹

The Staff's arguments are not without force; the articulated bases for standing of these two Petitioners are significantly more attenuated than that of Dr. Anders. We are "not inclined to disturb the Licensing Board's judgment on standing," however, "[a]bsent a gross misapplication of the facts or applicable law."⁵² Here,

⁴⁴ LBP-08-6, 67 NRC at 289.

⁴⁵ *Id.* at 282-83.

⁴⁶ The Board noted that Debra White Plume also submitted an affidavit authorizing Owe Aku to represent her interest, as did two other individuals. *Id.* at 283 n.199. We, like the Board, focus our inquiry on the standing of Mr. House, who proffers the strongest claim of the four.

⁴⁷ *Id.* at 283.

⁴⁸ *Sequoyah Fuels*, CLI-94-12, 40 NRC at 75.

⁴⁹ Staff Appeal of LBP-08-6 at 8-9. "Exhibit B," discussed *infra* Section II.C.1, contains the only evidence Petitioners presented on hydraulic gradient. It states that Crow Butte did not adequately support statements that suggest the hydraulic gradient was "generally" to the North and to the East within the NTEA. *See* Exhibit B at 12.

⁵⁰ Staff Appeal of LBP-08-6 at 10.

⁵¹ *Id.*

⁵² *Sequoyah Fuels*, CLI-94-12, 40 NRC at 72.

there is support in the record, albeit not overwhelming support, for standing.⁵³ Thus, we find no “gross misapplication of the facts or applicable law,” and we defer to the Board’s ruling as to the standing of Ms. White Plume and Owe Aku (the latter as supported by the affidavit of Mr. House).

C. Contentions

We agree with the Staff and Crow Butte that the admitted contentions are not adequately defined by the Board’s ruling, and appear to include matters that are either irrelevant to the requested license amendment or unsupported in the pleadings. But this is not to say that there is no substance, at the core of Petitioners’ complaints, that presents admissible issues. On the contrary, we agree with the Board that with the support of Exhibit B Petitioners have raised an issue as to whether the aquifer proposed to be subject to ISL operations is adequately confined. We therefore reformulate the vague and open-ended Contentions A and B to draw a more precise roadmap for the litigation.

We do not find, however, any record support for either Contention C or Contention E. For the reasons described below, we reverse the Board’s decision to admit these two contentions.

1. Exhibit B

The Staff and Crow Butte object to the way in which the Board reframed the proffered contentions and to the Board’s reliance on so-called “Exhibit B”⁵⁴ to bolster Petitioners’ claims. Because the Board relied heavily on Exhibit B in determining whether Petitioners’ claims regarding mixing of the aquifers had support, we first examine whether the Board abused its discretion in considering Exhibit B.

The Staff and Crow Butte argue that the Board improperly relied on Exhibit B to supplement Petitioners’ proposed contentions.⁵⁵ The Board found that Exhibit B corroborated Petitioners’ arguments that there could be mixing between the

⁵³ According to Ms. White Plume’s affidavit, in addition to fishing in the White River, she lives 60 miles from the site and drinks from a well that draws from an aquifer that “may” mix with the Basal Chadron. She also asserts that she and her family collect eagle feathers for ceremonial purposes on the NTEA, and she is concerned that the noise from the proposed operations would frighten the eagles away. *See* Affidavit of Debra White Plume (Dec. 20, 2007) (Appended to Reply to NRC Staff Response to Petition of Owe Aku and Debra White Plume (Dec. 28, 2007)). In considering Ms. White Plume’s standing, we focus on her stated uses of the White River and the NTEA, and do not consider her residence. *See White Mesa*, CLI-98-6, 47 NRC at 117 n.1 (finding that proximity alone does not suffice for standing in materials licensing cases).

⁵⁴ Exhibit B, *supra* note 8.

⁵⁵ Crow Butte Appeal of LBP-08-6 at 23; Staff Appeal of LBP-08-6 at 14-21.

Basal Chadron and Brule aquifers, which relate to both Contentions A and B (as admitted). The Board found that the “significance [of Exhibit B] is essentially self-evident, and . . . needs little if any explanation to point out its relevance,” and that it provided “information in the nature of expert support for Petitioners’ arguments.”⁵⁶

a. Timeliness of Exhibit B

The Staff and Crow Butte opposed the Board’s considering Exhibit B for any purpose, arguing that it was brought into the proceeding impermissibly late, and claiming that Petitioners failed to explain its relevance to their proposed contentions. While noting that Exhibit B was neither a contention nor a petition, the Board considered the timeliness of the exhibit using the late-filing factors of 10 C.F.R. §§ 2.309(c) and 2.309(f)(2).⁵⁷ We agree that a late-filed document that allegedly supports or provides a basis for a proposed contention should be considered under these rules.

As described above, Petitioners introduced Exhibit B on the day of the prehearing conference on standing and contention admissibility. Petitioners’ counsel represented that he became aware of Exhibit B the day before oral argument when it was sent to him by an unnamed “research organization.”⁵⁸ Apparently unbeknownst to Petitioners, the document had been publicly available on NRC’s public document management system, ADAMS, since November 26, 2007.⁵⁹ According to the Board, however, the document was not indexed by license number, making it unlikely to be found by persons interested in the proposed North Trend expansion.⁶⁰ On this basis, the Board found that Petitioners had demonstrated good cause for the late filing.⁶¹ We do not find that the Board erred in determining that the late-filing factors, on balance, weigh in Petitioners’ favor.⁶²

We observe, further, that neither Crow Butte nor the Staff can claim that

⁵⁶ LBP-08-6, 67 NRC at 320.

⁵⁷ *Id.* at 258.

⁵⁸ *See* Tr. 89.

⁵⁹ *See* ADAMS Accession No. ML073300399 (Exhibit B) (document profile indicating public release date of November 26, 2007).

⁶⁰ *See* LBP-08-6, 67 NRC at 259.

⁶¹ “Good cause” is the most significant of the late-filing factors set out at 10 C.F.R. § 2.309(c). Neither the Staff nor Crow Butte addresses on appeal the remaining section 2.309(c) and (f)(2) factors.

⁶² *Id.* at 260. *See, e.g., Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1, 5-8 (2008) (opponents’ arguments concerning other factors of the late-filing test — here considered under the Commission’s identical pre-2004 rule 10 C.F.R. § 2.714(a)(1) — did not outweigh petitioner’s strong showing of good cause).

they were unfairly surprised by the introduction of Exhibit B, as both were in possession of the document for approximately 2 months prior to the time Petitioners learned of its existence.⁶³ We find no reason to upset the Board's conclusion that Petitioners' introduction of Exhibit B was timely.

b. Relevance of Exhibit B

Crow Butte argues that the Board should have disregarded Exhibit B because it is analogous to a request for additional information (RAI). It also argues, “[j]ust because certain information was not submitted to NDEQ as part of the aquifer exemption application does not mean that information needed to be submitted to the NRC or even that it was not included in Crow Butte’s NRC license amendment application.”⁶⁴

Exhibit B is roughly analogous, in some respects, to an RAI, but this does not exclude it from the Board’s consideration. On one hand we have held — repeatedly — that a petitioner may not simply wait for the Staff to identify missing information and then ground a new contention on that request.⁶⁵ But on the other, we have acknowledged that in some cases, a petitioner may base a new contention on an RAI if the RAI or its response raises new information.⁶⁶ In addition, Petitioners here did not simply use Exhibit B to identify new “omissions,” but used it to bolster their original challenges to Crow Butte’s application. And, significantly, the Board found that Exhibit B does not merely ask for additional information, but points out specific statements that the NDEQ staff reviewer found to be unsupported, misleading, or wrong.⁶⁷

The Board found that Crow Butte had conceded that the information in the NDEQ application is the same information as found in the NRC license application,⁶⁸ although Crow Butte and the Staff now argue to the contrary.⁶⁹ Crow Butte’s argument that Exhibit B pertains to different information is belied by direct quotes from the NDEQ application, which have word-for-word parallels

⁶³ Tr. 89.

⁶⁴ Crow Butte Appeal of LBP-08-6 at 24 (emphasis in original).

⁶⁵ See, e.g., *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 349-50 (1998); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 336-37 (1999) (rejecting a contention that the mere existence of “numerous” RAIs constituted “*prima facie* evidence . . . that the application is incomplete”).

⁶⁶ *Calvert Cliffs*, CLI-98-25, 48 NRC at 350 (in some cases, an RAI or its response may raise a new issue upon which a new contention could be grounded, subject to the rules for filing a late contention).

⁶⁷ LBP-08-6, 67 NRC at 260-62 (the letter and detailed review “go well beyond mere requests for additional information”).

⁶⁸ See *id.* at 261, citing Crow Butte Resources, Inc.’s Response to Newly-Filed Exhibits A and B (Feb. 8, 2008), at 10.

⁶⁹ Crow Butte Appeal of LBP-08-6 at 25; Staff Appeal of LBP-08-6 at 15-16.

in Crow Butte's license application. To give but one example, on page 11 of Exhibit B, the NDEQ staff reviewer quotes the following passage from the NDEQ application:

Based on core analysis from the CSA,^[70] it is evident that the upper and lower confining beds (the Upper Chadron through Brule and Pierre Shale, respectively) contain significant percentages of montmorillonite clay and other clays and/or calcite. Those would indicate the presence of clay minerals with very fine grain sizes. Core and hydrologic data from the CSA indicate that the vertical hydraulic conductivity of the confining shales and clays overlying and underlying the Basal Chadron Sandstone are on the order of 10^{-10} cm/sec, or lower. The geologic information presented in this application clearly demonstrates the lateral continuity of the overlying and underlying confining zones on both regional and local scales, as well as the lateral occurrence and distribution of the Basal Chadron Sandstone.⁷¹

The NDEQ staff reviewer then states that "these types of statements are unsupported and misleading," because they are based largely from inferring that conditions in the NTEA are the same as those in the CSA (site of Crow Butte's current operations).⁷² Crow Butte's application before the NRC contains virtually the same passage, with the addition of two sentences referring to an analysis of the grain size of the clay found at the CSA site.⁷³ The Corrected Reference Petition specifically pointed to this portion of the license amendment application in disputing Crow Butte's assertion that the Basal Chadron is continuously confined.⁷⁴ And the Board cited to portions of Exhibit B that tend to bolster Petitioners' argument that reliable confinement between the layers has not been shown.⁷⁵

We therefore find no error in the Board's consideration of Exhibit B to support

⁷⁰ CSA refers to the original "Crow Butte Study Area," or the site of the existing operation. Exhibit B at 1.

⁷¹ Exhibit B at 11.

⁷² *Id.*

⁷³ Application for Amendment of USNRC Source Materials License SUA-1534, North Trend Expansion Area Technical Report (TR), at 2.6-17 to -18 (ADAMS Accession No. ML071760343). There are other examples where the NDEQ application language quoted in Exhibit B is identical to that found in the NRC license application: *Compare, e.g.*, TR at 2.6-11: "The ancient soil horizon known as the Interior Paleosol has been scoured away by the overlying Chadron Sandstone throughout most of the North Trend Expansion Area," with Exhibit B at 2 (which notes that "Interior Paleosol" is no longer a term "accepted in the literature," and that "sandstones don't erode things)." *Compare, also*, TR at 2.6-12: "A persistent clay horizon typically brick red in color, generally marks the upper limit of the Basal Chadron Sandstone" with Exhibit B at 3 (criticizing the NDEQ license application for claiming that "a persistent clay horizon, typically brick red in color, generally marks the upper limit of the Basal Chadron Sandstone)."

⁷⁴ Corrected Reference Petition at 19.

⁷⁵ LBP-08-6, 67 NRC at 262-64.

Petitioners' claims concerning site geology and hydrology set forth in support of Contentions A and B, discussed further below.

2. *Contentions A and B*

Our contention pleading rules are designed to ensure both that only well-defined issues are admitted for hearing and that parties admitted to litigate sophisticated technical issues are qualified to do so.⁷⁶ For our licensing boards to entertain contentions grounded on little more than guesswork would waste the scarce adjudicatory resources of all involved.

The Board diplomatically described Petitioners' pleadings as "less than optimally organized or articulated."⁷⁷ The Corrected Reference Petition (as well as the individual petitions that preceded the Corrected Reference Petition) is a muddle, particularly with respect to Contentions A and B. Significantly, Petitioners failed to file new or amended contentions based on the newly submitted Exhibits A and B after Petitioners had retained counsel and the Board gave Petitioners the express opportunity to do so⁷⁸ — an extraordinary opportunity not provided for in our rules. Petitioners did not take advantage of this opportunity to show how their newly proffered evidence supported their claims, and to bring their Petition up to the pleading standards that we expect, particularly when petitioners are represented by counsel. The Board generously overlooked Petitioners' failure to amend their Petition, and attempted to sort out some admissible claim from the disorganized papers with which it was presented.

We find that, in LBP-08-6, the Board exceeded its authority in reformulating Contentions A and B.

a. *Reformulation of Petitioners' Contentions*

Our boards may reformulate contentions to "eliminate extraneous issues or to consolidate issues for a more efficient proceeding."⁷⁹ Our rules of procedure

⁷⁶ *Id.* See also *Oconee*, CLI-99-11, 49 NRC at 334.

⁷⁷ LBP-08-6, 67 NRC at 262.

⁷⁸ See Order (Confirming Matters Addressed at January 23, 2008, Telephone Conference) (Jan. 24, 2008).

⁷⁹ *Shaw AREVA MOX Services* (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 482 (2008) (emphasis omitted). (See *id.* at 481-83 for a discussion of Board's legal authority to reformulate contentions). See also *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 237, 240-44 (2006); *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 341 (2006); *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 NRC 229, 245, 252, *review denied*, CLI-04-31, 60

(Continued)

authorize boards to hold prehearing conferences for the purposes of simplifying or clarifying the issues for hearing, after which a board might admit a revised contention.⁸⁰ But a board should not add material not raised by a petitioner in order to render a contention admissible.⁸¹ In this case, the Board's efforts at reformulation did not achieve the goal of "clarity, succinctness, and a more efficient proceeding."⁸²

As a preliminary matter, we see no error in the Board's initial determination to redraft the contentions to allocate to Contention A those claims pertaining to NEPA and to Contention B those falling under the AEA, for this promotes clarity.⁸³ Nor did the Board err when it stated that nothing prohibited Petitioners' approach of substantiating their contentions by pointing out omissions or inconsistencies in the application.⁸⁴ We also agree with the Board's general observation that the Petitioners are not *required* to provide expert support at the contention admissibility stage, although expert support is certainly one means to supply the basis and specificity our rules do require.⁸⁵

We find, however, that the Board's reformulation of Contentions A and B admitted certain bases that do not meet our contention admissibility standards and failed to clarify the scope of the matters to be litigated. The Board should have explicitly stated which bases were admitted, including the reasons for their admissibility, and to which contention each basis applied. Instead, the Board merely noted in a general way that not all bases apply to both reformulated contentions because one deals only with AEA issues and the other with NEPA issues.⁸⁶ The Board went on to find that all bases "except as otherwise stated above . . . remain open issues."⁸⁷

Having reviewed the record in this proceeding, we find that the Board's reformulation of Contentions A and B fails to define adequately the scope of the admitted contentions. As we have held, the scope of an admitted contention is defined by its bases.⁸⁸ Because the Board failed to specify which bases were

NRC 461 (2004); *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 271, 276 (2004).

⁸⁰ 10 C.F.R. §§ 2.319(j) and 2.329(c)(1).

⁸¹ *Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 720-21 (2006). *See also Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991).

⁸² *Siemaszko*, 63 NRC at 720, quoting *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), LBP-84-40A, 20 NRC 1195, 1199 (1984).

⁸³ LBP-08-6, 67 NRC at 293.

⁸⁴ *Id.* at 318.

⁸⁵ *Id.*, citing *Oconee*, CLI-99-11, 49 NRC at 342.

⁸⁶ LBP-08-6, 67 NRC at 321.

⁸⁷ *Id.* at 323.

⁸⁸ *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 379 (2002).

admissible and which were not, and which applied to each admitted contention, we find that the Board improperly recast the contentions in this matter. Further, we find that certain of Petitioners' proffered claims, admitted by the Board, do not meet our contention admissibility standards.

Therefore, to clarify the scope of this proceeding, we reconsider the admissibility of Contentions A and B ourselves, bearing in mind the requirements for admissible contentions:

(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 petitioner intends to rely to support its position on the issue;

. . .

(vi) [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 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.⁸⁹

b. Admissibility of Contentions A and B

Contentions A and B pertain to the alleged contamination of water resources from the proposed ISL uranium recovery activities, and the associated public health and safety and environmental impacts from such contamination. The Corrected Reference Petition grouped these claims into two contentions. Contention A, as submitted by Petitioners, focused principally on the health risks associated with contamination of water resources, while Contention B focused upon the impacts of that contamination to the environment. As the Board recast the contentions, admitted Contention A encompassed the environmental aspects

⁸⁹ 10 C.F.R. § 2.309(f)(1).

of Petitioners' admissible claims, and admitted Contention B the public health and safety issues. As acknowledged by the Board, the issues in proposed Contentions A and B are interrelated.⁹⁰ For the sake of clarity, we consider Petitioners' proposed contentions as they were designated in the Corrected Reference Petition.

As discussed below, we find one core litigable issue, pertaining to potential mixing between the Basal Chadron and Brule aquifers. We therefore admit a revised, single Contention A. Subpart A1 encompasses the technical claims identified in the contention, and Subpart A2 the environmental claims.

(i) ISSUES RELATING TO WATER CONSUMPTION

A number of "contentions" relevant to potential water contamination from operations were included in the Corrected Reference Petition.⁹¹ The Board observed that Petitioners substantiated their contentions by pointing out omissions or inconsistencies in the application, noting that "nothing . . . prohibits such an approach."⁹² Although the Board found that Exhibit B "bolstered" and "corroborated" Petitioners' claims,⁹³ it focused on portions of the Corrected Reference Petition that claimed there was mixing between the aquifers, not on portions of Exhibit B that purportedly supported this theory.⁹⁴

In its original form, Petitioners' Contention A argued that Crow Butte's operations contaminate a large quantity of water, and that, even post-treatment, water is returned to the aquifer in a changed condition. The principal argument of original Contention A is that the application thereby misstates the proposed operation's net consumption of water:

A. [Crow Butte's] Mining Operations Use and Contaminate Substantial Water Resources and Radioactive Wastewater Mixes with [the] Brule and High Plains Aquifers and Moves in a Slow-Moving Plume.

(i) [Crow Butte] [u]ses 9,000 gallons per minute of pristine water and returns that amount of radioactive, geochemically changed water to the Chadron aquifer.

⁹⁰LBP-08-6, 67 NRC at 293.

⁹¹Petitioners' approach in the Corrected Reference Petition was first to describe general concerns in contentions designated "A" through "F," with subparts listed in an attachment. Petitioners then cited specific sections of the license amendment application and described issues with those sections in statements also designated "contentions." These "contentions" were not assigned alphabetical descriptors, but the Board considered these also to be "bases" for the broader contentions. *See* LBP-08-6, 67 NRC at 301 n.314. The Corrected Reference Petition also lists (at 2-5) "Relevant Facts" concerning Crow Butte's ownership, spills and excursions that have or may have occurred at its existing facility, and related matters, which Petitioners claim support their proposed contentions.

⁹²LBP-08-6, 67 NRC at 318.

⁹³*Id.* at 319.

⁹⁴*Id.* at 295-99.

There is no basis to use the “net consumption” number suggested by [Crow Butte] of about 113 gpm because the water returned to the aquifer is very different, namely it contains low-level radioactivity, from the water removed by [Crow Butte] from the aquifer.

(ii) The basis for the contention is that several places in the Application and in other public testimony (see, e.g., [Crow Butte] Testimony at August 21, 2007 Nebraska Natural Resources Committee Hearing) [Crow Butte] gives a misimpression that its water usage is relatively nominal because it uses the fact that its “restoration” meets NDEQ regulations as grounds for not counting the full amount of [its] water usage.

(iii) The issue is in the scope of the proceeding because [Crow Butte] seeks to use an additional 4,500 gpm, for a total of \$13,500 [*sic*] gpm, at a time when the aquifer is not recharging as fast as it is being used and at a time of widespread drought.

(iv) The issue is material to the findings of the NRC which is required to determine whether [Crow Butte’s] current operation and proposed operation is in the best interests of the general public; water usage is key to that determination.

(v) Alleged Facts: The Relevant Facts are hereby incorporated by reference.⁹⁵ In addition [Crow Butte’s] water usage is admitted by it to be 9,000 gpm at its current facility and 4,500 at North Trend. Petitioner believes there is a slow moving plume of radioactive water in the High Plains aquifer caused by [Crow Butte’s] current operation and which poses a health risk to the people who use the High Plains aquifer in Colorado, Nebraska, New Mexico, Oklahoma, South Dakota, Texas and Wyoming. The Arikaree aquifer that runs under the Eastern portion of Pine Ridge Indian Reservation mixes with the Brule aquifer in which [Crow Butte] has documented radioactive leaks and mixes further with the other elements of the High Plains aquifer. Petitioner cites to USGS “GroundWater Atlas of the United States; Kansas, Missouri and Nebraska[”] . . . which indicated that the Brule aquifer mixes with the unconfined water in the High Plains aquifer and that the High Plains aquifer is being depleted faster than it is being recharged.

(vi) [Crow Butte’s] Application states that it returns the water to the aquifer in a changed state and omits to state that the returned water is radioactive. Application states that there is a slow movement between fractures in Brule aquifer and the High Plains aquifer. Little is known about the White River Fault and how it may contribute to fractures that may contribute to fractures that allow for movement of radioactive water when Excursions occur.⁹⁶

In support of the claim that water restored to the mined aquifer is contami-

⁹⁵ See Corrected Reference Petition at 2.

⁹⁶ *Id.* at 9.

nated, Petitioners pointed to portions of Crow Butte’s Environmental Report (ER) wherein, they claimed, Crow Butte “admits” that water it would use and return to the aquifer is “radioactive.”⁹⁷ This is a mischaracterization; the cited portions of the ER state that operations will “alter the groundwater geochemistry” in the Basal Chadron so that returning groundwater precisely to its baseline composition will be “unlikely.” The application provides data showing that the groundwater in the Basal Chadron aquifer already contains radionuclides and other inorganic constituents that render it unsafe to drink.⁹⁸ The application further states that Crow Butte will use NDEQ standards as a secondary goal to ensure that the water will be “suitable for any use for which it was suitable before mining.”⁹⁹ Although Petitioners argue that, apparently, the Basal Chadron is used for drinking regardless of whether it meets current NDEQ standards, they have not demonstrated a genuine dispute over the accuracy of the application’s discussion of current or anticipated water quality in the Basal Chadron.

In short, Petitioners’ proposed challenge to the restoration value of the water returned to the Basal Chadron fails to controvert the application, and therefore is not admissible. In addition, insofar as this contention and its associated bases attack the standards for *current operations* at the Crow Butte site, which would not be affected by the requested amendment, it is outside the scope of this proceeding. However it is viewed, then, the entire claim that the application has misstated the consumptive use of water is inadmissible.

Petitioners’ assertion that there is a drought in the region was apparently intended to stress the importance of the consumptive water use claim. The claim that the application must consider drought and climate change was one of the few bases that the Board specifically admitted, finding that the question related to the applicant’s obligation under our NEPA-implementing regulations to describe the environment affected by the proposed action and the significance of the environmental impacts.¹⁰⁰ The Staff argued before the Board that Petitioners failed both to explain the significance of drought and to offer any evidence of the existence of drought.¹⁰¹ Petitioners offered a regional atlas as support for their statement that the aquifer is not recharging as fast as it is being used. Crow Butte

⁹⁷ *Id.* at 10, citing “Application for Amendment of USNRC Source Materials License SUA-1534 North Trend Expansion Area Environmental Report (ER),” §§ 2.2 and 5.4.1.3.2.

⁹⁸ ER at 3.4-40, 3.4-83 to -90.

⁹⁹ ER at 5-24.

¹⁰⁰ LBP-08-6, 67 NRC at 321-22, citing 10 C.F.R. § 51.45(b)(1), (4).

¹⁰¹ NRC Staff Combined Response in Opposition to Petitioners’ Requests for Discretionary Intervention and Petitions for Hearing and/or to Intervene of Debra White Plume, Thomas Cook, Owe Aku/Bring Back the Way, Chadron Native American Center, High Plains Development Corporation, Slim Buttes Agricultural Development Corporation, and Western Nebraska Resources Council, at 21-23, 26-27, 36-38 (Dec. 7, 2007).

apparently does not deny this assertion, but argues that an atlas is too general to constitute evidence supporting a contention. We agree that a general statement in an atlas is thin support for the proposition that a drought exists. The existence or nonexistence of an asserted drought condition is not relevant to the proceeding.

The only element left of proposed Contention A is the claim that there is inadequate confinement between the aquifers within the NTEA such that contamination of the Basal Chadron could seep into the Brule. We discuss this so-called “mixing argument” in greater detail below“

(ii) “MIXING ARGUMENT” OR LACK OF ADEQUATE CONFINEMENT IN NTEA

Although not specifically listed as “bases” for Contention A, the Corrected Reference Petition includes the following arguments, which the Board also treated as proposed bases for Contention A’s claim that contamination from the proposed operation could spread from the aquifer within the NTEA site:

Contention: TR 2.2.3 states that Basal Chadron is not used for domestic supply in the North Trend area but omits to state that water that mixes with Basal Chadron and Brule aquifers *is* used by people and animals surrounding the North Trend Area.¹⁰²

....

***Contention:* [Crow Butte] says that the Brule Formation *does* conduct water; 25 ft/day; and there may be more saturated areas; and that it can be fractured (e.g., by the observed tectonic movements or earth quakes, and that upon fracturing, they would no longer serve as a lower confining unit — [Crow Butte] has evidence of fracturing but has made a judgment that it would not impact the designation of the Pierre as a lower confining unit below the Basal Chadron Sandstone — this is in contention.¹⁰³

....

***Contention:* Petitioner does not believe that adequate confinement exist[s] in light of admitted conductivity between the Brule formation and High Plains aquifer.¹⁰⁴

....

***Contention* [Descriptions of the North Trend structure and hydrology in specific portions of the Technical Report and Environmental Report] . . . show[] that [Crow Butte] really doesn’t know whether the White River fault, tectonic movements and/or nearby drilling of other wells will cause increased movement of water between the aquifers. [Crow Butte] is assuming things about the structural feature — the White River fault — related to the flow in the Basal Chadron Sandstone —

¹⁰² Corrected Reference Petition at 10 (emphasis in original).

¹⁰³ *Id.* at 11 (emphasis in original).

¹⁰⁴ *Id.* at 12.

which means that they don't know about how contained the radioactive fluid will be.¹⁰⁵

The “mixing argument” is at the heart of both Contentions A and B, as reformulated and admitted by the Board in LBP-08-6. Whether the Basal Chadron aquifer is adequately confined is relevant to both the description of the affected environment and to the health and safety of potentially exposed individuals as a result of the proposed expanded operation. We agree with the Board that the mixing argument is within the scope of the proceeding. We also find that Petitioners adequately supported this argument for the purposes of contention pleading by identifying portions of the application they disputed and by relying on Exhibit B, which appears to contradict statements in the application and demonstrates a genuine dispute as to whether the proposed operations at the NTEA will contaminate underground sources of drinking water.¹⁰⁶ The mixing argument is therefore admissible.

(iii) CLAIMS THAT SPILLS FROM EXISTING OPERATION CONTAMINATED PINE RIDGE WELLS

Petitioners' proposed Contention B claimed in a general way that ISL uranium recovery is harmful to the environment. It cited, among other things, leaks at the current operation and an incident when drinking wells on the Pine Ridge Indian Reservation were closed due to contamination, which Petitioners claim came from ISL uranium recovery activities:

B. ISL Mining is NOT Environmentally Friendly; ISL Mining May Have Caused Health Impacts at Pine Ridge Indian Reservation Closing 98 Wells.

(i) [Crow Butte] claims throughout the application and in public testimony that it's [*sic*] ISL mining process is proven and environmentally friendly.

(ii) The basis for the contention is that [Crow Butte] gives a mis-impression [*sic*] that its operations are environmentally friendly when there are at least 23 reported incidences of spills at its current facility and reports of excursions of radioactive wastewater into the Brule aquifer which does mix with the High Plains aquifer.

(iii) The issue is in the scope of the proceeding because [Crow Butte] seeks to expand its operations on the basis that it is a less harmful alternative to open pit uranium mining but [Crow Butte] fails to take responsibility for environmental damage caused by its form of ISL mining.

¹⁰⁵ *Id.* at 14.

¹⁰⁶ *See* notes 71-73, *supra*, and accompanying text.

(iv) The issue is material to the findings of the NRC which is required to determine whether [Crow Butte's] current operation and proposed operation is in the best interests of the general public; environmental safety is key to that determination.

(v) Alleged Facts: The Relevant Facts are hereby incorporated by reference. In addition, [Crow Butte] is responsible for several leaks including a 300,000 gallon leak of which only 200,000 gallons was cleaned up, a 25,000 sq. ft. contamination and a two year long coupling leak of at least one gallon per hour of radioactive waste. The leaks migrated and may have caused the contamination of 98 water wells on Pine Ridge Indian Reservation.

(vi) [Crow Butte's] Application states that it believes that its operations results [*sic*] in minimal short term impacts and no long term impacts and Petitioner believes that its operations result in major short term and long term adverse impacts.¹⁰⁷

The Board order did not discuss these bases for proposed Contention B. We observe, however, that Petitioners' claim that prior ISL uranium recovery — implicitly, Crow Butte's existing operation — has led to past contamination is not within the scope of this license application for a new operation in a different area. License amendment proceedings are not a forum to address past violations or accidents that have no direct bearing on the proposed amendment.¹⁰⁸ In addition, Petitioners' general claims that the application "misrepresents" that the proposed operations are "environmentally friendly" do not show a genuine dispute of fact or law with the application.

It does not appear, in fact, that Petitioners' proposed Contention B or any of its bases are to be found in the Board's reformulated contentions. Rather, it appears that reformulated Contention A relates to the NEPA aspects, and Contention B relates to the AEA aspects, of the argument related to inadequate confinement of the mined aquifer found throughout the Corrected Reference Petition and specifically addressed in Petitioners' proposed Contention A.

We agree with Crow Butte and the NRC Staff that neither proposed Contention B nor any of its stated bases was, or should have been, admitted by the Board. The scope of the admitted contentions cannot include the claims relating to contamination of wells at Pine Ridge or the general environmental "friendliness" of Crow Butte's operation.

¹⁰⁷ Corrected Reference Petition at 15.

¹⁰⁸ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 366 (2001), citing *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 36 (1993). See also *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 243 (2008) (a license amendment adjudication is "not the forum" to address Petitioners' concern about past radiological releases).

(iv) HEALTH EFFECTS OF EXPOSURE TO ARSENIC

In LBP-09-1, the Board declined to admit, as a stand-alone contention, a proposed new contention concerning the health effects of arsenic exposure. Instead, the Board found that the new material presented issues that may be litigated “as part of” the previously admitted Contention B.¹⁰⁹ Although it is unclear to what extent the Board’s ruling would expand issues for hearing, Crow Butte has appealed that portion of LBP-09-1.¹¹⁰ We find that the late-filed information (whether considered a proposed contention, or a supplemental basis) does not show a genuine dispute within the scope of this license amendment proceeding.

Petitioners based their contention on a recent study suggesting a link between low levels of arsenic in drinking water and diabetes.¹¹¹ Petitioners argued that arsenic released from the expansion area will contaminate the groundwater and cause diabetes.¹¹² Citing a different study, Petitioners further claimed that diabetes can lead to pancreatic cancer.¹¹³ Finally, they submitted the affidavit of their own attorney, stating his belief that the towns of Chadron, Nebraska, and Pine Ridge, South Dakota, have disproportionately high rates of pancreatic cancer compared to the national average. Petitioners attributed these diseases to releases of arsenic from Crow Butte’s existing ISL uranium recovery activities.¹¹⁴

There is no dispute that exposure to arsenic causes adverse health effects. Crow Butte concedes that “[c]hronic arsenic exposure has long been known to cause adverse health effects, including cancer and diabetes.”¹¹⁵ What Crow Butte disputes is Petitioners’ claim that its proposed new operation will release arsenic to usable ground and surface waters.

On appeal, Crow Butte raises both substantive and procedural objections. It argues, with some basis, that the Board failed to consider the late-filing factors

¹⁰⁹ LBP-09-1, 69 NRC at 46.

¹¹⁰ Crow Butte Resources’ Notice of Appeal of LBP-09-1 (Feb. 6, 2009), at 17 (Crow Butte Appeal of LBP-09-1).

¹¹¹ See generally Arsenic Petition, citing Arsenic Study, *supra* note 22.

¹¹² Petitioners’ contention is identical to one offered in the proceeding on Crow Butte’s license renewal application. We rejected the arsenic contention as outside the scope of that proceeding, and similarly reject it here. See *Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska)*, CLI-09-9, 69 NRC 331, 362-64 (2009).

¹¹³ Arsenic Petition at 8, citing Suresh T. Chari *et al.*, *Probability of Pancreatic Cancer Following Diabetes: A Population-Based Study*, 129 J. Inst. Am. Gastroenterol. Assn. 504 (Aug. 2005).

¹¹⁴ Arsenic Petition at 3-4. Petitioners’ claim that Chadron has an unusually high rate of pancreatic cancer was based on their attorney’s conversation with a Chadron resident who told him of several known cases. See Affidavit of David Frankel (attached to Arsenic Petition).

¹¹⁵ Crow Butte Appeal of LBP-09-1 at 18.

with respect to the “new” contention.¹¹⁶ Crow Butte also argues that the proposed “new” contention was not new at all. Petitioners’ Corrected Reference Petition included assertions about how arsenic exposure from the existing ISL operations had already caused “cancer, kidney disease, birth defects, miscarriages and infant brain seizures.”¹¹⁷ Both the Staff and Crow Butte had argued before the Board that the single “new” study relating to the dangers of arsenic exposure did not offer any information that was substantively different from previously available information. But other than to note that the Staff and Crow Butte had objected under the late-filed contention rules, the Board did not address this argument.

In our view, the issue presented lacks adequate support and does not demonstrate a genuine dispute with respect to the application. Petitioners give no support, other than their own beliefs, for the claim that the existing ISL operation has released arsenic into the groundwater, which in turn has caused adverse health effects to the surrounding populations.

Even assuming that Petitioners had demonstrated a dispute as to whether arsenic has been released from the existing site of operations, there are gaps in Petitioners’ reasoning. First, they claim that the Arsenic Study’s findings explain the asserted prevalence of diabetes at Chadron, Nebraska, and the Pine Ridge Indian Reservation, but provide no facts or expert opinion to buttress that argument. For example, they do not argue that persons in Chadron or on the reservation are exposed to inorganic arsenic in quantities comparable to those of the subjects of the Arsenic Study. And they do not exclude other factors that may cause diabetes. In addition, Petitioners offer the unsubstantiated arguments of counsel regarding the increased incidence of pancreatic cancer in Chadron.¹¹⁸ Without more, therefore, Petitioners’ arguments are speculative and do not form the basis for a litigable contention.

Because this contention fails to satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1), we need not reach Crow Butte’s procedural arguments on lateness. We note, however, that Crow Butte’s timeliness arguments help illustrate why the contention is substantively inadmissible for failing to show a genuine dispute with the application. Crow Butte argues that the study discussing the link between low-level arsenic exposure and diabetes is not new information supporting a late-filed contention, because the various adverse health effects of arsenic exposure have long been known.¹¹⁹ Crow Butte, in other words, does not dispute that the release of arsenic into public drinking water would be harmful. Rather, Crow Butte maintains that its operations have not and will not release contaminants such as arsenic — a broad issue encompassed

¹¹⁶ *Id.* at 17.

¹¹⁷ Corrected Reference Petition at 3.

¹¹⁸ Arsenic Petition at 3-4.

¹¹⁹ Crow Butte Appeal of LBP-09-1 at 18, 19.

by Contention A. But there is nothing in the Arsenic Study that tends to show that Crow Butte's proposed expansion operation is likely to release arsenic. The Arsenic Study, therefore, does not include any new information within the scope of this adjudication. We therefore conclude that the Board erred in admitting this issue as a new basis for admitted Contention B.

(v) REVISED ADMITTED CONTENTION A

To summarize our holding, we find that there is a single core issue — whether mixing between the aquifers could lead to potential contamination of offsite ground and surface waters — and that this single issue has both a technical and an environmental aspect. We restate the admitted contention as follows:

Subpart A1 (technical): Crow Butte's proposed expansion of mining operations will use and contaminate water resources, resulting in harm to public health and safety, through mixing of contaminated groundwater in the mined aquifer with water in surrounding aquifers and drainage of contaminated water into the White River.

Basis: Crow Butte has not established the Brule formation as a confining layer in that Crow Butte acknowledges that the Brule conducts water at 25 ft/day; that there may be more saturated areas; and that fracturing may be present (e.g., by the observed tectonic movements or earthquakes).¹²⁰

Basis: Crow Butte has not established the continuity of the Pierre as a lower confining unit.¹²¹

Basis: Crow Butte has not shown that the White River fault, tectonic movements and/or nearby drilling of other wells will not cause increased movement of water between the aquifers. Crow Butte has not shown that the White River fault will not cause communication between the mined aquifer and the overlying aquifer and the White River.¹²²

Subpart A2 (environmental): Crow Butte's License Amendment Application does not accurately describe the environment affected by its proposed mining operations or the extent of its impact on the environment as a result of its use and potential contamination of water resources, through mixing of contaminated groundwater in the mined aquifer with water in surrounding aquifers and drainage of contaminated water into the White River.

Basis: The application does not take into consideration current and future

¹²⁰ Corrected Reference Petition at 11, citing TR 2.6.2.5, ER 3.4.3.1. *Compare* Exhibit B at 10-11 with TR at 2.7-17 to -18.

¹²¹ Corrected Reference Petition at 11, citing ER 3.4.3.1. *See also* Exhibit B at 9.

¹²² Corrected Reference Petition at 13-14, citing TR 2.6.2.7, ER 4.3.1. *See also* Exhibit B at 9, 15.

domestic use of water from the Basal Chadron in the area surrounding the NTEA.¹²³

3. *Contention C (Consultation with Tribes)*

We find that the Board erred in admitting Contention C in LBP-08-6. As discussed below, Contention C fails because it does not identify — either in its original or reformulated form — a deficiency in the application.

Crow Butte’s license amendment application states that there is a prehistoric Indian camp in the general vicinity of the NTEA, located to the southwest of the NTEA.¹²⁴ It goes on to say that within the NTEA, there are “three historic sites and three isolated prehistoric artifacts.”¹²⁵ With its Environmental Report, Crow Butte included an archeologists’ report that concluded the scattered prehistoric artifacts “are not likely to yield information important in prehistory or history.”¹²⁶

Petitioners’ proposed Contention C appears to reflect Petitioners’ belief that an “Indian camp” discussed in the application is actually within the NTEA boundary:

C. Prehistoric Indian Camp Should Be Inspected by Tribal Elders and Leaders¹²⁷

. . . .

Petitioner submits that [Crow Butte] is not qualified to make any determinations concerning the significance of the prehistoric Indian camp found at the North Trend Site. Oglala Sioux elders and leaders should be consulted immediately before any further action is taken that might interfere with the archeological value of the prehistoric Indian camp.¹²⁸

We find that neither the proposed Contention C, nor Contention C as reformulated and admitted by the Board, states an admissible contention.

In response to the Petition, Crow Butte pointed out that there was *no* Indian

¹²³ Corrected Reference Petition at 10, citing ER 5.4.1.3.2, TR 2.2.3. *See also* Exhibit B at 1, 16-17.

¹²⁴ *See* ER at 3.8-1.

¹²⁵ *Id.*

¹²⁶ *See* ARCADIS U.S., Inc., “Crow Butte Resources North Trend Expansion Area Class III Cultural Resource Inventory, Dawes County, Nebraska” (Feb. 2007) (ADAMS Accession No. ML071870307), at i (Cultural Resource Inventory).

¹²⁷ Corrected Reference Petition at 2.

¹²⁸ *Id.* at 23.

camp — only three isolated prehistoric artifacts — found within the NTEA.¹²⁹ It argued before the Board that Petitioners gave no reason to believe the proposed expansion would have an impact on any Indian archeological site.¹³⁰

The Board dismissed Crow Butte’s argument that the Indian camp is outside the NTEA boundary, stating simply that “Staff and Applicant raise questions about the location of the resources at issue and whether these are within the area that is relevant to the [site].”¹³¹ We, on the other hand, see no support in the record for any plausible claim that an Indian camp is within the NTEA boundary. Petitioners offered no support for their claim that there is a prehistoric Indian campsite within the NTEA boundary. Petitioners’ belief that such a campsite exists appears to be the result of their misunderstanding of the application. Petitioners’ contention, as submitted, did not raise a genuine dispute with respect to the application.

Apparently based on discussions during the prehearing conference,¹³² the Board found that there was a question whether the consultation requirements of the National Historic Preservation Act (NHPA) had been met. It appears that the Board found that applicable provisions of the NHPA requiring “consultation” with tribal leaders give credence to Petitioners’ view that only a tribal member can judge the significance of a site or artifact from a particular tribe.¹³³ The Board reasoned that the NHPA requires the Staff to consult with Indian tribes concerning certain actions that potentially affect them.¹³⁴ Because our procedural rules require Petitioners to raise contentions based on the application (including the environmental report), the Board reasoned, Petitioners should be able to raise the nonconsultation at this time.¹³⁵ The Board reformulated the proposed contention into a Contention C that claims:

Reasonable consultation with Tribal Leaders regarding the prehistoric Indian camp located in the area surrounding [Crow Butte’s] proposed North Trend Expansion Project has not occurred as required under NEPA and the National Historic Preservation Act.¹³⁶

Not only was this argument the Board’s own creation, it incorrectly suggests

¹²⁹ The three “historic” sites evidently relate to 20th-century farm use. Cultural Resource Inventory at 6-8.

¹³⁰ Tr. 318-22.

¹³¹ See LBP-08-6, 67 NRC at 329.

¹³² See Tr. 312-34.

¹³³ See LBP-08-6, 67 NRC at 328. See also Tr. 330-32 (Petitioners’ argument that the applicant had a duty to inform Tribal leaders of the findings in the cultural assessment so leaders could judge artifacts’ significance).

¹³⁴ See LBP-08-6, 67 NRC at 328, citing 36 C.F.R. §§ 800.4(b), 800.4(c)(1), 800.4(d)(1).

¹³⁵ *Id.* at 329.

¹³⁶ *Id.* at 344.

that the NHPA consultation requirement applies to the Applicant, rather than the Staff. The Advisory Council on Historic Preservation (ACHP) regulations the Board cites explicitly apply to federal agencies, not to a private license applicant.

The NHPA requires a federal agency to take into account the effects that certain proposals may have on properties listed, or eligible for listing, under the National Register of Historic Places.¹³⁷ The agency must consult with Indian tribes in two situations. First, where the action is going to take place on tribal lands, the agency must consult with the “Tribal Historic Preservation Officer” (if one has been designated to assume the duties normally performed by the State Historic Preservation Officer on tribal lands).¹³⁸ Second, *the agency* must make a “reasonable and good faith effort to identify any Indian tribes . . . that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties.”¹³⁹

While the applicant may consult with local tribes before submitting an application, as Crow Butte did here,¹⁴⁰ an applicant’s consultation would not relieve the agency of its compliance responsibility. Regardless of the applicant’s efforts, the burden rests on the NRC to fulfill the consultation requirements. By the Board’s logic, a contention like Contention C would be admissible for any license application involving an opportunity for a hearing, without regard to the contents of the license application, simply because the agency has not yet had the opportunity to act.

In other words, the fact that Staff consultations have not taken place is a result of the legal framework, not of any deficiency in the application. Absent a genuine dispute over the sufficiency of the application, Contention C is inadmissible.¹⁴¹

¹³⁷ ACHP’s NHPA regulations apply to federal “undertakings,” defined as any “project, activity or program . . . funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those . . . requiring a Federal permit, license or approval.” 36 C.F.R. § 800.16(y). The NRC implements its responsibilities under NHPA in conjunction with the NEPA process. *See USEC Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 437-38 (2006).

¹³⁸ 36 C.F.R. § 800.3(c).

¹³⁹ 36 C.F.R. § 800.4(f)(2).

¹⁴⁰ According to its ER, Crow Butte sent letters to the Nebraska Commission on Indian Affairs and to thirteen potentially affected tribes notifying them of the proposed action. ER at 3.8-1.

¹⁴¹ Our rules of procedure explicitly allow the filing of a new contention on the basis of the draft or final environmental impact statement where that document contains information that differs “significantly” from the information that was previously available. *See* 10 C.F.R. § 2.309(f)(2) (providing that, with respect to issues arising under NEPA, the petitioner may file new contentions “if there are data or conclusions in the NRC draft or final environmental impact statement . . . that differ significantly from the data or conclusions in the applicant’s documents”). If, following publication of the Staff’s environmental review document, Petitioners continue to believe that the consultations were not performed as required, they may proffer such a contention pursuant to section 2.309(f)(2). *See* CLI-09-9, 69 NRC at 351.

4. *Contention E (Foreign Ownership)*

We find the Board erred in admitting Contention E, concerning the significance of the Applicant's ownership by a Canadian parent, Cameco Corporation. On appeal, Crow Butte argues that proposed Contention E raises issues outside the scope of this license amendment proceeding, and that Petitioners have articulated no genuine dispute with the Applicant.¹⁴² The Staff makes similar arguments, and further complains that the Board accepted arguments not actually made by Petitioners in the Reference Petition, and that the Board engaged in an "unwarranted reconsideration of the NRC's past regulatory approval of Cameco's controlling interest in [Crow Butte]." ¹⁴³ We agree with Crow Butte and the Staff. The Board admitted this contention based largely on arguments and evidence that were not in the Corrected Reference Petition and which were developed throughout several rounds of briefs, in contravention of our regulations regarding the scope of replies and the filing of late contentions. In addition, this contention encompasses matters that are outside the scope of the proceeding; principally, postulated exports of uranium to other countries. Finally, there is no support for the Board's conclusion that Petitioners had raised a question whether foreign ownership of the proposed expansion of the ISL operation would be inimical to the public health and safety or the common defense and security.¹⁴⁴

a. *Background of Contention E*

Petitioners' original proposed contention, as submitted, states:

[Crow Butte] Fails to Mention it is Foreign Owned by Cameco, Inc. So all the Environmental Detriment and Adverse Health Impacts Are For Foreign Profit and There is No Assurance The [Crow Butte] Mined Uranium Will Stay in the US for Power Generation

.....

(ii) The Basis for the contentions [*sic*] is that [Crow Butte] has omitted references to foreign ownership in order to give the mis-impression that [Crow Butte's] Uranium mining operations are somehow profitable to US interests when in fact they are profitable to Canadian and other foreign interest to the detriment to US persons' health and safety.

.....

¹⁴² Crow Butte Appeal of LBP-09-1 at 13-17.

¹⁴³ NRC Staff's Notice of Appeal of Licensing Board's Order of January 27, 2009 (LBP-09-01), and Accompanying Brief (Feb. 6, 2009) at 8-9.

¹⁴⁴ This contention raises the same arguments that we rejected with respect to the Crow Butte license renewal proceeding. *See* CLI-09-9, 69 NRC at 361.

Contention: [Crow Butte] is [sic] owned by Cameco since 2000. Cameco also runs operations in Canada and Kazakhstan [sic] and which sells [sic] Uranium products to other non-US buyers which may include China, India, Pakistan, North Korea and possibly Iran unless there are Canadian regulations which restrict such sales.¹⁴⁵

The proposed contention made three basic arguments. First, Petitioners claimed that the profits and products of the uranium recovery operations will go to Canada, while the environmental consequences would be imposed on the local population. Second, they argued that as a Canadian company, Crow Butte's parent company, Cameco, will direct Crow Butte to export its product overseas to buyers to whom a U.S. corporation could not or would not sell. Third, they claimed that the application "concealed" Crow Butte's foreign ownership. None of these arguments forms the basis for an admissible contention.

In LBP-08-6, the Board indicated that it saw at least the potential for a contention over whether foreign ownership is "inimical to the common defense and security or to the health and safety of the public" and that it would ask for follow-up briefs and schedule additional oral argument on the issue.¹⁴⁶ Subsequently, the parties submitted five rounds of briefs, and the Board held additional oral argument on July 23, 2008.¹⁴⁷ Over time, the arguments shifted away from those originally presented by Petitioners, and some of those newer arguments formed the basis of the Board's ruling in LBP-09-1.

b. Board Ruling Disregarded Rules Regarding New Arguments

In addition to the arguments Petitioners raised in their Corrected Reference Petition, new claims were added as briefing on this issue continued. By allowing Petitioners to develop their arguments over the course of five rounds of briefs, the Board disregarded the rule that a reply cannot expand the scope of the arguments set forth in the original hearing request.¹⁴⁸ New bases may not be introduced in a reply brief unless they meet the late-filing criteria set forth in our regulations.¹⁴⁹ Although a Board has discretion in determining what is timely, we find in this case that the Board abused that discretion.

¹⁴⁵ Corrected Reference Petition at 24-25.

¹⁴⁶ LBP-08-6, 67 NRC at 339, citing 42 U.S.C. § 2012(d). The Board appeared to be confused by a misreading of section 103(d) of the AEA and of 10 C.F.R. § 40.38, which prohibit foreign ownership of production and utilization facilities, and the U.S. Enrichment Corporation or any of its successors, respectively. These provisions do not apply to ISL recovery licensees. The Board acknowledged that this reading was in error at subsequent oral argument. Tr. 439.

¹⁴⁷ See *supra* note 19, Tr. 415-624.

¹⁴⁸ See *Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006).

¹⁴⁹ *Id.*

Petitioners' initial contention was that Crow Butte had concealed its foreign parent, that it is unfair for a Canadian corporation to receive economic benefits when U.S. citizens bear the environmental risks associated with uranium recovery, and that the "Canadian owners may divert the uranium products to non-US customers such as China, India, Pakistan, North Korea or possibly Iran."¹⁵⁰ But the briefs, oral argument, and the Board's discussion in LBP-09-1 went far beyond those claims.

As an initial matter, there is no basis for the claim that Crow Butte "concealed" its foreign ownership. Crow Butte notified the Commission of its change in ownership April 2000, and the NRC reviewed the proposed transaction and concluded that a license amendment was not necessary.¹⁵¹ The current license amendment application involves no change of ownership or control. Despite this, the Board suggested that the license application was deceptive in not disclosing Crow Butte's ultimate ownership by Cameco.¹⁵²

Although the Board did not restate Contention E when admitting it, it is evident that the Board intends the admitted contention to include matters not raised in the Corrected Reference Petition. One such argument is Petitioners' claim that Cameco would direct Crow Butte to disregard U.S. regulations regarding health, safety, and environmental protection because its directors are beyond the reach of U.S. laws.¹⁵³ The Board accepted this argument, first introduced at oral argument, that it is not "realistic to expect that relevant regulatory requirements could be enforced with Crow Butte if the need ever arose."¹⁵⁴ Not only is this argument impermissibly late and unsupported, it ignores the principle that we do not presume that a licensee will violate our regulations.¹⁵⁵ This and other matters raised after the contention was originally proffered should have been considered under the late-filing rules. Because they were not (and it is not evident that those

¹⁵⁰ Corrected Reference Petition at 24-25.

¹⁵¹ See Letter from Stephen P. Collings, Senior Vice President-Operations, Crow Butte Resources Inc., to Thomas Essig, Chief, Uranium Recovery Branch, Office of Nuclear Material Safety and Safeguards, NRC, Re: Docket No. 40-8943, Source Materials License SUA-1534, Change of Ownership (Apr. 7, 2000) (ADAMS Accession No. ML080390182); Letter from Thomas H. Essig to Stephen P. Collings, Subject: License Amendment is not needed for change in ownership, License No. SUA-1534 (May 31, 2000) (ADAMS Accession No. ML003711700).

¹⁵² See LBP-09-1, 69 NRC at 31-33, 41, 48.

¹⁵³ See Tr. 462-63. See also Response to Applicant's Submission re: Standing (Aug. 22, 2008), at 4, wherein Petitioners argue that problems associated with foreign control of Crow Butte include "reckless disregard by foreign owners of the US public health and safety" and "skape-goating [*sic*] of US managers of the mine for acts by foreign decisionmakers."

¹⁵⁴ LBP-09-1, 69 NRC at 34, citing Tr. 458.

¹⁵⁵ See, e.g., *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station), LBP-01-10, 53 NRC 273, 287 (2001); *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000).

rules would be satisfied in any event), the Board erred in including them within the scope of the contention.

c. Contention E Is Outside the Scope of the License Amendment Proceeding

Petitioners argued that a foreign-owned company would be more likely to export its product overseas than would a U.S.-owned company, including to countries that sponsor terrorism.¹⁵⁶ But before source material can be exported from the United States, the NRC must grant an export license under 10 C.F.R. Part 110.¹⁵⁷ Crow Butte is not seeking an export license in connection with the application at issue. As such, Petitioners' concern, for which it has provided no support beyond general speculation, falls outside the scope of this proceeding.

The Board also erred in finding the difficulty Petitioners might have in demonstrating standing in a future export proceeding to be a reason to allow Petitioners to litigate hypothetical exports in this proceeding.¹⁵⁸ The scope of any NRC licensing proceeding is defined by the scope of the approval at issue. Any future proposed export of source material by Crow Butte would be the subject of an opportunity for hearing pursuant to 10 C.F.R. Part 110.¹⁵⁹ Issues that may arise in a future proceeding based on an entirely separate application are not relevant to the proceeding at hand.¹⁶⁰

d. No Support for Claim That Cameco's Ownership Is Inimical to Common Defense or Public Safety

The Board erroneously found a "genuine dispute" whether ownership of Crow Butte by a foreign parent is "inimical" to the common defense and public safety based entirely on the bald assertions and speculation of Petitioners. Petitioners'

¹⁵⁶ See, e.g., Tr. 443-44.

¹⁵⁷ 10 C.F.R. § 110.9(b).

¹⁵⁸ LBP-09-1, 69 NRC at 38-40.

¹⁵⁹ 10 C.F.R. § 110.82. Should the license amendment application ultimately be granted, to the extent that natural uranium recovered at that time may be subject to export under an existing export license, an opportunity to request a hearing was published with respect to that application, in accordance with the Part 110 rules. Should Petitioners or any other member of the public seek enforcement action with respect to ongoing licensed activities (including licensed exports), they may pursue such action under the provisions of 10 C.F.R. § 2.206.

¹⁶⁰ See, e.g., *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-14, 55 NRC 278, 293-94 (2002) (contention related to facility's possible future use of mixed oxide (MOX) fuel was irrelevant to and outside the scope of a license renewal application that did not request approval for use of such fuel, despite evidence that applicant might request approval to use such fuel in a separate, future proceeding).

unsupported claims that Cameco will divert uranium to enemies of the United States do not raise a “genuine dispute.”

Our regulations do not prohibit issuance of a materials license to a licensee wholly owned by a foreign parent.¹⁶¹ Rather, the Staff must find that issuance of the license, among other things, “will not be inimical to the common defense and security or to the health and safety of the public.”¹⁶² Because such a license is not prohibited in general, then the Petitioners at a minimum would have to offer some evidence that issuing the license amendment to Crow Butte *in particular* would present a danger to the common defense and security, or public health and safety.

Petitioners provide no support, other than the mere fact of Crow Butte’s foreign ownership and Petitioners own hypothetical scenarios, to show that Crow Butte’s Canadian ownership poses such a danger. The Board appears to conclude that Petitioners have raised more than the mere fact of foreign ownership, because “it came out in [the Board’s] site visit that, whatever Crow Butte mine personnel may do with regard to NRC requirements, ultimate control of the License/Applicant appears to rest with Cameco personnel, who are based in Canada.”¹⁶³ From this unrecorded conversation, the Board determined that an issue had arisen over whether the NRC could effectively enforce its regulations against the applicant.¹⁶⁴ For the reasons stated above, the Board erred in admitting this issue.

We find that neither foreign ownership itself, nor Petitioners’ postulated concerns, is enough to demonstrate a genuine dispute as to whether the license amendment would be inimical to the common defense and security or to the health and safety of the public. We therefore conclude that the Board erred in admitting Contention E.¹⁶⁵

D. Request for Subpart G Procedures

Early in the proceeding, Petitioners requested that the Board apply the more formal procedures set forth in 10 C.F.R. Part 2, Subpart G.¹⁶⁶ The Board declined Petitioners’ request to hold the hearing under Subpart G. The Board correctly found that it had no authority on its own to grant Petitioners’ request to use Subpart G procedures, but recommended that the Commission order that the

¹⁶¹ See CLI-09-9, 69 NRC at 361.

¹⁶² See generally 10 C.F.R. § 40.32(d); AEA § 69, 42 U.S.C. § 2099.

¹⁶³ LBP-09-1, 69 NRC at 34.

¹⁶⁴ *Id.*

¹⁶⁵ In its appeal, Crow Butte advances the argument that Petitioners have not demonstrated standing to prosecute Contention E. Crow Butte Appeal of LBP-09-1 at 8-13. Because we find that Contention E is inadmissible, we need not reach Crow Butte’s standing argument.

¹⁶⁶ Corrected Reference Petition at 5. See 10 C.F.R. § 2.310(d).

proceeding be conducted under those procedures.¹⁶⁷ The Board observed that our regulations state that a materials license amendment proceeding “may” be held under Subpart L,¹⁶⁸ but that the provisions of Subpart G, which expressly apply in certain identified circumstances not present here, may be used in “any other proceeding as ordered by the Commission.”¹⁶⁹

The Board gave several reasons why it considered the more formal procedures in Subpart G to be appropriate in this case. One reason the Board gave for the request is that Subpart G would allow cross-examination, which, it reasoned, would be helpful in resolving complex technical issues involving geology and hydrology.¹⁷⁰ The Board also found that Crow Butte’s alleged “failure to disclose” significant information concerning its foreign ownership, and intervenors’ allegation that Crow Butte will “value ‘foreign profits’” over U.S. laws, raised questions about Crow Butte’s credibility, motive, and intent, which can be better addressed using Subpart G procedures.¹⁷¹ The Board further indicated that formal discovery under Subpart G would “better ensure disclosure of all pertinent information” than Subpart L’s “mandatory disclosures,” particularly in light of the claim that Crow Butte deliberately omitted information relating to its foreign ownership.¹⁷² For the reasons set forth below, we decline to order that this proceeding be conducted using Subpart G procedures.

In our view, the Board overstated the supposed limitations of Subpart L in conducting a hearing. Subpart L does, in fact, contemplate requests for cross-examination by the parties. Should a discrete issue be identified at or before the oral hearing that warrants cross-examination by the parties, Subpart L allows any party to request it.¹⁷³ Indeed, the cross-examination rules in Subpart L have been upheld, and found to meet the requirements of the Administrative Procedure Act.¹⁷⁴

In the same vein, mandatory disclosures (in lieu of discovery), which apply to Subpart L proceedings, are wide-reaching, requiring parties (other than the NRC Staff) to provide, among other things, a copy or description of “all documents

¹⁶⁷ LBP-09-1, 69 NRC at 47.

¹⁶⁸ *Id.*, citing 10 C.F.R. § 2.310(a). *See generally* 10 C.F.R. § 2.1200.

¹⁶⁹ *Id.*, citing 10 C.F.R. § 2.700.

¹⁷⁰ *Id.* at 48.

¹⁷¹ *Id.* at 49, 50.

¹⁷² *Id.* at 50.

¹⁷³ *See* 10 C.F.R. § 2.1204(b) (permitting a party to file a motion with the presiding officer to permit cross-examination by the parties on particular admitted contentions or issues). The presiding officer shall allow cross-examination if such cross-examination “is necessary to ensure the development of an adequate record for decision.” 10 C.F.R. § 2.1204(b)(3). In addition, the provisions of Subpart L governing the oral hearing provide an opportunity for the parties to propose questions that the presiding officer may propound to persons sponsoring testimony. 10 C.F.R. § 2.1207(a)(3).

¹⁷⁴ *Citizens Awareness Network, Inc. v. NRC*, 391 F.3d 338, 351 (1st Cir. 2004).

and data compilations in the possession, custody, or control of the party that are relevant to the contentions.’’¹⁷⁵ And the Board may impose sanctions on parties who fail to comply, including dismissal of the relevant contention or of the application itself.¹⁷⁶ These provisions also have been examined by the First Circuit, which upheld the mandatory disclosure rules, finding that they ‘‘provide meaningful access to information from adverse parties in the form of a system of mandatory disclosure.’’¹⁷⁷

Not only is it true that our procedures provide for a full and fair adjudication of the case, but at bottom, the contention admitted for litigation is one that is fairly typical for a uranium recovery case. We do not, therefore, find that this is a situation that warrants the extraordinary step of a Subpart G proceeding. As discussed above, the claimed ‘‘nondisclosure’’ of foreign ownership does not raise an issue of the Applicant’s credibility, in light of the fact that the ownership change was known to and approved by the NRC Staff.¹⁷⁸ We also do not find that the Applicant’s ‘‘motive’’ is at issue here. The bare assertions of Petitioners provide no support for the claim that the Applicant has improper motives for seeking this license amendment. These assertions, as discussed earlier, are insufficient to support a contention and we do not find them sufficient to support a request for the extraordinary application of Subpart G procedures.

III. CONCLUSION

We conclude that the Board did not err in finding that Petitioners have demonstrated standing. We find that the Board abused its discretion in recasting and admitting Contentions A and B, *reverse* the Board’s ruling admitting those contentions, and *remand* with the direction to admit Contention A as set forth above. We *reverse* the Board’s decision to admit Contention C and Contention E. Finally, we *decline* to order that the Board use Subpart G procedures in this proceeding.

¹⁷⁵ See 10 C.F.R. § 2.336(a)(2)(i). For its part, the Staff must maintain a hearing file (*see* 10 C.F.R. § 2.1203), and also make disclosures pursuant to 10 C.F.R. § 2.336(b), which includes not only information relevant to the contentions, but all documents supporting the Staff’s review of the application that is the subject of the proceeding.

¹⁷⁶ 10 C.F.R. § 2.336(e)(1).

¹⁷⁷ *Citizens’ Awareness Network*, 391 F.3d at 350, citing 10 C.F.R. § 2.336.

¹⁷⁸ See *supra* note 151 and accompanying text.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 25th day of June 2009.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Peter B. Lyons
Dale E. Klein
Kristine L. Svinicki

In the Matter of

Docket Nos. 52-025-COL
52-026-COL

**SOUTHERN NUCLEAR OPERATING
COMPANY**
(Vogtle Electric Generating Plant,
Units 3 and 4)

June 25, 2009

REFERRED RULINGS

Under the Commission's rules, the Board may refer a ruling to the Commission if it determines that "prompt decision is necessary to prevent detriment to the public interest or unusual delay or expense," or if the ruling involves "a novel issue that merits Commission review at the earliest opportunity." The Commission will review a referred ruling only if it raises "significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding." *See* 10 C.F.R. §§ 2.323(f), 2.341(f)(1).

FAIRNESS

When the unique circumstances of a case could result in the compromise of a participant's hearing rights, the Commission has taken action to ensure that hearings are fair and accommodate the rights of participants.

MEMORANDUM AND ORDER

The Licensing Board has referred to us its ruling denying two contentions challenging the completeness of a combined license application (COLA) because it references design control document (DCD) revisions still under review by the Commission. For the reasons set forth below, we decline to review the Board's rulings with respect to these contentions.

I. BACKGROUND

This proceeding concerns the application of Southern Nuclear Operating Company (SNC) for a combined license (COL) under 10 C.F.R. Part 52 to construct and operate two new nuclear reactor units at the Vogtle Electric Generating Plant (Vogtle) site in Georgia. Five organizations — the Center for a Sustainable Coast, Savannah Riverkeeper, the Southern Alliance for Clean Energy, the Atlanta Women's Action for New Directions, and the Blue Ridge Environmental Defense League (collectively, Petitioners) — jointly sought the right to intervene.¹

On March 5, 2009, the Board issued LBP-09-3, which found that Petitioners had demonstrated standing and had submitted one admissible contention, Contention SAFETY-1.² Based on these findings, the Board granted the petition to intervene.

The Board also rejected Petitioners' contentions MISC-1 and MISC-2.³ Contention MISC-1, as submitted, stated:

SNC's COLA is incomplete because many of the major safety components and operational procedures of the proposed [Vogtle] Units 3 and 4 either (1) have been omitted altogether or (2) are conditional at this time and will be for the indefinite future. Modifications to such safety components or operational procedures could cause substantial changes to the COLA. Regardless of whether the design of [Vogtle] Units 3 and 4 is certified or not, a meaningful technical and safety review of the COLA cannot be conducted without the full disclosure of the final and complete reactor design.⁴

Likewise, Contention MISC-2 stated:

¹ Petition for Intervention (Nov. 17, 2008) (Petition).

² LBP-09-3, 69 NRC 139 (2009). SNC's and the Staff's appeals of the Board's decision to admit Contention SAFETY-1 are under consideration.

³ Petitioners styled these contentions "Technical Contention 1" and "Technical Contention 2," but the Board renamed them "MISC-1" and "MISC-2" without objection. *See* LBP-09-3, 69 NRC at 148.

⁴ Petition at 8.

SNC's COLA is incomplete because many of the major safety components and procedures at the proposed [Vogtle] Units 3 and 4 either (1) have been omitted altogether or (2) are conditional at this time and will be for the indefinite future. Moreover, in connection with Westinghouse's submission of Revision 17, SNC is now required to either adopt Revision 17 or resubmit its COLA as a plant-specific design. Either course of action will require substantial changes to the COLA, which as currently drafted incorporates Revision 16 — a revision no longer being reviewed by the NRC Staff. Regardless of whether the design of [Vogtle] Units 3 and 4 is certified or not, a meaningful technical and safety review of the COLA cannot be conducted without the full disclosure of the final and complete reactor design.⁵

These contentions refer to DCD Revision 16 and Revision 17, respectively.⁶ The Board concluded that both contentions were inadmissible because they impermissibly challenged “Commission regulatory requirements” and because they failed to raise a “specific, sufficiently supported, material issue” regarding the COLA.⁷ Noting that appeals touching on similar issues in other COL proceedings were pending with the Commission, the Board referred its rulings to us for immediate consideration, citing our preference for the generic consideration and resolution of issues in new reactor licensing proceedings.⁸

II. DISCUSSION

Under our rules, the Board may refer a ruling to the Commission if it determines that “prompt decision is necessary to prevent detriment to the public interest or unusual delay or expense,” or if the ruling involves “a novel issue that merits Commission review at the earliest opportunity.”⁹ We will review a referred ruling only if it raises “significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding.”¹⁰ In this case, we decline to review the referred rulings, because we find that their consideration would not advance the orderly disposition of this proceeding. We

⁵ *Id.* at 11.

⁶ *See* LBP-09-3, 69 NRC at 155. These revisions are part of the ongoing AP1000 design certification amendment review.

⁷ *See id.*

⁸ *Id.* at 159, citing Conduct of New Reactor Licensing Proceedings; Final Policy Statement, 73 Fed. Reg. 20,963, 20,971-72 (Apr. 17, 2008) (New Reactor Policy Statement). We recently decided the *Shearon Harris* appeal, remanding the contention to the Licensing Board for further consideration consistent with our opinion. *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-09-8, 69 NRC 317 (2009). The *Summer* appeal remains pending.

⁹ 10 C.F.R. § 2.323(f).

¹⁰ 10 C.F.R. § 2.341(f). *See Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 72 (2009).

recently have had the opportunity to review this very issue in a number of other COL matters, and need not revisit it here.¹¹

In any event, however, we understand the Board's referral to concern not the Board's admissibility rulings, but rather a procedural issue arising from a situation that may occur in the future as a result of the agency's parallel consideration of a standard design certification rule and a COLA: Where a petitioner has framed an admissible COLA-related safety contention following the completion of a design certification rulemaking — or, perhaps, in the absence of a certified design — how would a presiding officer address potential uncertainty in the application of our rules for filing late contentions under 10 C.F.R. § 2.309(c), or, if applicable, for reopening the record pursuant to 10 C.F.R. § 2.326?¹²

We appreciate the Board's concern. When the unique circumstances of a case could result in the compromise of a participant's hearing rights, we have taken action to ensure that hearings are fair and accommodate the rights of participants.¹³ While it appears that the Board would have us prescribe hearing procedures for post-certification design-related contentions, we find that such an exercise is premature. The AP1000 design certification amendment rulemaking is ongoing, and is scheduled to continue for some time.¹⁴ During the pendency of that proceeding, and in the absence of a concrete dispute in this COL proceeding, the nature of the equities — and whether they would be the same in every COL case — is unknown. Therefore, we find it is premature to consider whether additional detailed guidance is necessary for the adjudication of such contentions. However, we are mindful of our responsibilities, and, as stated in the New Reactor Policy Statement:

¹¹ See, e.g., *Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 3), CLI-09-4, 69 NRC 80 (2009); *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1 (2008). See also *Luminant Generating Co., LLC* (Comanche Peak Nuclear Power Plant, Units 3 and 4), Nos. 52-034-COL and 52-035-COL (Apr. 27, 2009) (unpublished); Letter from Andrew Bates to Diane Curran, Esq., and James Blackburn, Jr. (Dec. 30, 2008).

¹² See LBP-09-3, 69 NRC at 158, 159 & n.13) (observing “both contentions . . . reflect Joint Petitioners['] concern about whether, under the more stringent admissibility requirements that apply generally to contentions that are submitted after a timely hearing petition, they will have a ‘realistic opportunity’ to interpose a post-[design certification rulemaking] challenge to the completeness and adequacy of the SNC COLA relative to any DCD revisions resulting from such a rulemaking”).

¹³ E.g., *Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 63-66 (2009). The precise relief afforded in the *MOX* case may not be appropriate in other contexts. See *id.* at 59 n.8 (“The peculiar procedural circumstances and the unusual nature of the equities favoring Intervenors combine to render this decision *sui generis*. As such, it should not be considered precedential”).

¹⁴ See generally Letter to R. Sisk, Westinghouse Electric Co., from D.B. Mathews, Office of New Reactors, “Revision to Review Schedule for AP1000 Design Certification Amendment (Docket 52-006)” (Apr. 3, 2009) (ADAMS Accession No. ML090770458).

The Commission intends to monitor its proceedings to ensure that they are being concluded in a fair and timely fashion. To this end, the Commission will act in individual proceedings, as appropriate, to provide guidance to licensing boards and parties, and to decide issues in the interest of a prompt and effective resolution of the matters set for adjudication.¹⁵

In this way, we will avoid an application of our procedural rules that could inadvertently prejudice any participant due to factors beyond its control.

III. CONCLUSION

As discussed above, we *decline* to review the Board's referred rulings with respect to Contentions MISC-1 and MISC-2.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 25th day of June 2009.

¹⁵New Reactor Policy Statement, 73 Fed. Reg. at 20,973.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Peter B. Lyons
Dale E. Klein
Kristine L. Svinicki

In the Matter of

Docket No. 63-001-HLW

U.S. DEPARTMENT OF ENERGY
(High-Level Waste Repository)

June 30, 2009

APPEALS

Commission silence on matters not specifically considered on appeal constitutes neither approval nor disapproval of any individual unreviewed ruling. *See Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 343 n.3 (1998) (citations omitted) (unreviewed Board rulings carry no precedential weight).

APPEALS

As a general matter, the Commission defers to Board rulings on contention admissibility in the absence of clear error or abuse of discretion. *See Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 336 (2009) (citing, *inter alia*, *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 234 (2008)); *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-09-8, 69 NRC 317, 324 (2009); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006).

CONTENTIONS

A petitioner is limited to the contention as initially filed and may not rectify its deficiencies through a reply brief or on appeal. *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223 (2004).

CONTENTIONS

Commission pleading rules permit contentions that raise issues of law as well as contentions that raise issues of fact. *See* 10 C.F.R. § 2.309(f)(1)(i).

CONTENTIONS

The Boards reasonably concluded that it was not necessary for petitioners to allege “facts” under section 2.309(f)(1)(v) or to provide an affidavit that sets out the “factual and/or technical bases” under section 51.109(a)(2) to support a purely legal contention. Therefore, the Commission found that the Boards’ interpretation and application of section 2.309(f)(1) contention admissibility requirements and section 51.109(a)(2) affidavit requirement were reasonable.

CONTENTIONS, MATERIALITY

Whether “excessive” safety design could lead to “licensing uncertainty,” unnecessary costs, or delays are not issues material to this licensing proceeding. There is no legal requirement that the Staff find that the proposed design is not “too conservative” or that the associated costs are not excessive as part of its safety review of the construction authorization application.

CONTENTIONS, MATERIALITY

Contentions that DOE lacks “management integrity” to operate a high-level waste geologic repository were impermissible challenges to the Nuclear Waste Policy Act (NWPA), and to actions by the President and the Congress under the statutory scheme established by the NWPA, and are therefore beyond the scope of this proceeding. In the NWPA, Congress designated DOE, an executive agency, as the body solely responsible for constructing and operating the Yucca Mountain repository.

APPLICANTS

DOE is not a “person” for purposes of AEA § 11s.

MEMORANDUM AND ORDER

Today we respond to appeals of the Construction Authorization Boards' (CABs or Boards) First Prehearing Conference Order in this proceeding concerning the U.S. Department of Energy's (DOE) application for authorization to construct a geologic repository at a geologic repository operations area (GROA) at Yucca Mountain in Nye County, Nevada.¹ The NRC Staff has appealed LBP-09-6 on the ground that the CABs improperly admitted forty contentions.² Clark County, Nevada has appealed the decision to reject one of its contentions, designated CLK-SAFETY-001.³

As discussed below, we affirm in part, and reverse in part, the appealed rulings.

I. BACKGROUND

The procedural background of this adjudicatory proceeding is recounted in the Boards' First Prehearing Conference Order.⁴

This proceeding is unusual in its scope and complexity, and is the most extensive proceeding in the agency's history — among other matters, the Boards considered 317 proposed contentions, and admitted nearly all of them — 299 contentions total. In so doing, the Boards “read, analyzed, and discussed the more than 12,000 pages of petitions, answers, and replies”⁵ The various petitions and contentions were apportioned among the CABs,⁶ and each CAB then analyzed (among other things) the contentions for which it was responsible to determine whether each contention satisfied the admissibility requirements of 10 C.F.R. § 2.309(f)(1), made no improper challenges to Commission rules, and met the standards of 10 C.F.R. §§ 51.109 and 2.326, as applicable.⁷ The Boards addressed in some detail a number of “overarching issues” common to nearly all submitted contentions.⁸ In large part, however, the Boards provided little analysis of individual contentions; rather, they articulated a general determination:

¹ LBP-09-6, 69 NRC 367 (2009).

² NRC Staff Notice of Appeal of LBP-09-06 and NRC Staff Brief in Support of LBP-09-06 (May 21, 2009) (NRC Staff Appeal).

³ Clark County, Nevada's Notice of Appeal of LBP-09-06, Memorandum and Order of May 11, 2009, and Clark County, Nevada's Brief on Appeal of LBP-09-06, Memorandum and Order of May 11, 2009 (May 21, 2009) (Clark County Appeal).

⁴ LBP-09-6, 69 NRC at 377-81. *See* 10 C.F.R. § 2.1021(d).

⁵ LBP-09-6, 69 NRC at 452.

⁶ *Id.*, 69 NRC at 376.

⁷ *Id.*, 69 NRC at 452; *see generally* 10 C.F.R. § 2.335.

⁸ LBP-09-6, 69 NRC at 391-422.

The contentions proffered by petitioners that have demonstrated standing, and that satisfy the . . . admissibility standards, are set forth in Attachment A, which identifies the rulings made by each of the three CABs. Each contention listed in Attachment A satisfies the six requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi), does not improperly challenge a rule or regulation of the Commission in violation of 10 C.F.R. § 2.335, and otherwise complies with the admissibility standards . . .⁹

Attachment A lists admissible contentions by their alphanumeric designation and title. Contentions not satisfying the admissibility standards are listed in Attachment B to the decision; each Board identified the “principal deficiencies” of each rejected contention in Sections IX-XI of the decision.¹⁰

Following issuance of the First Prehearing Conference Order, two parties to this proceeding filed appeals pursuant to 10 C.F.R. § 2.1015(b): on May 21, 2009, Clark County and the Staff filed timely appeals in accordance with the schedule set forth in 10 C.F.R. Part 2, Appendix D of our regulations, as modified by the Notice of Hearing for this proceeding.¹¹ The States of Nevada and California, the Nuclear Energy Institute (NEI), Nye County, and the Native Community Action Council (NCAC) filed timely briefs in opposition.¹²

II. DISCUSSION

The vast majority of the rulings made by the Boards in the First Prehearing Conference Order have not been appealed. We address today only those specific issues raised on appeal, and express no opinion on the balance of the Boards’ rulings. Our silence should be interpreted as neither approval nor disapproval of any individual unreviewed ruling.¹³

⁹ *Id.*, 69 NRC at 452.

¹⁰ *Id.*, 69 NRC at 452, 472-74 (CAB-01), 474-80 (CAB-02), 482-83 (CAB-03).

¹¹ Department of Energy; Notice of Hearing and Opportunity to Petition for Leave to Intervene on an Application for Authority to Construct a Geologic Repository at a Geologic Repository Operations Area at Yucca Mountain, 73 Fed. Reg. 63,029 (Oct. 22, 2008); CLI-08-25, 68 NRC 497 (2008) (Notice of Hearing).

¹² State of Nevada’s Brief in Opposition to NRC Staff Appeal (May 29, 2009) (Nevada Opposition); California’s Opposition to NRC Staff Appeal of LBP-09-06 (May 31, 2009) (California Opposition); The Nuclear Energy Institute Brief in Opposition to NRC Staff’s Appeal of LBP-09-06 (May 29, 2009) (NEI Opposition); Nye County Reply to the NRC Staff Appeal of LBP-09-06 (June 1, 2009) (Nye County Reply); Native Community Action Council’s Brief in Opposition to NRC Staff Appeal (May 29, 2009) (NCAC Opposition).

¹³ See *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 343 n.3 (1998) (citations omitted) (noting that unreviewed Board rulings carry no precedential weight).

As a general matter, we defer to Board rulings on contention admissibility in the absence of clear error or abuse of discretion.¹⁴ Our review is appropriately informed by the unique circumstances and issues presented. We consider the appeals of Clark County and the Staff in turn.

A. Clark County

In its intervention petition, Clark County submitted fifteen proposed contentions.¹⁵ CAB-01 admitted all but two of Clark County's contentions, designated CLK-SAFETY-001 and CLK-SAFETY-012.¹⁶ Clark County has appealed only CAB-01's ruling rejecting CLK-SAFETY-001.

Clark County summarizes CLK-SAFETY-001 as follows:

Treatment of uncertainty in the Safety Analysis Report ([SAR]) is neither complete, integrated, nor unbiased. Three sources of uncertainty that impact the SAR results — data assumptions, model assumptions, and methods assumptions — appear in the SAR primarily as assumptions, screening “analyses,” and claims of conservatism, presented without associated technical bases. As a result, risk could be much higher than calculated. The DOE's evaluation of risk is therefore unreliable and fails to comply with the safety requirements of 10 [C.F.R.] Part 63.¹⁷

To support its contention, Clark County relied on an Independent Performance Assessment Review report, which stated that “[a]n overarching requirement is that the uncertainties associated with the future performance of the repository be understood and quantified”¹⁸ Based on that assessment, Clark County contended that “the treatment of uncertainty must be held to a high standard.”¹⁹ Building on that assertion, Clark County further concluded that DOE had failed to adhere to that “very high standard,” rendering the results of the Total System Performance Assessment (TSPA) and SAR unreliable.²⁰ As an example, Clark

¹⁴ *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 336 (2009) (citing, *inter alia*, *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 234 (2008)); *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-09-8, 69 NRC 317, 324 (2009); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006).

¹⁵ Clark County, Nevada's Request for Hearing, Petition to Intervene, and Filing of Contentions (Dec. 22, 2008) (Clark County Petition).

¹⁶ LBP-09-6, 69 NRC 473-74.

¹⁷ Clark County Petition at 3.

¹⁸ *Id.* at 7 (quoting Report of the Independent Performance Assessment Review (IPAR) Panel (LSN DEN001598189)).

¹⁹ Clark County Petition at 7-8.

²⁰ *Id.* at 8.

County referred to DOE's human reliability analysis in the preclosure probabilistic risk assessment, and took exception to its interrelatedness with other analyses,²¹ which underscored, according to Clark County, the difficulty of "unraveling the analysis throughout the [application]" in order to evaluate DOE's risk assessment.²² In addition, Clark County provided a summary table (consisting of a laundry list of examples) of uncertainties in the application due to: "unjustified assumptions," "inappropriate screening 'analyses,'" or "unsubstantiated claims of conservatism."²³

Both DOE and the Staff opposed the admissibility of this contention for failing to provide the required facts or expert opinion in support of Clark County's position, or otherwise failing to demonstrate that a genuine dispute exists on a material issue of law or fact.²⁴ DOE also argued that the issue raised in the contention was not material to the findings NRC must make relating to the construction authorization request.²⁵

The Board found CLK-SAFETY-001 to be inadmissible because Clark County "[did] not provide the necessary facts or expert opinion required by 10 C.F.R. § 2.309(f)(1)(v)" nor "provide sufficient information to show that there is a genuine dispute of material issue of fact or law as required by 10 C.F.R. § 2.309(f)(1)(vi)."²⁶

Clark County contends on appeal that the Board erred in failing to admit CLK-SAFETY-001 and offers three supporting reasons.²⁷ First, Clark County argues that LBP-09-6 is internally inconsistent. Clark County contends, citing an excerpt from the Order, that the Boards referred to CLK-SAFETY-001 as an example of an admissible contention (in effect finding it to be admissible), even though CAB-01 ultimately ruled that the contention was inadmissible.²⁸ In essence, Clark County argues that the rejection of CLK-SAFETY-001 was the result of a clerical error. We disagree, and find that Clark County misinterprets the Order.

The Boards included the following discussion in their analysis of DOE's and the Staff's overarching arguments relating to application of the admissibility standards to contentions pertaining to the TSPA:

²¹ *See id.*

²² *Id.*

²³ *Id.* at 12-21 ("Table 1. Potential Impacts of Uncertainty").

²⁴ Answer of the U.S. Department of Energy to Clark County, Nevada's Request for Hearing, Petition to Intervene and Filing of Contentions (Jan. 15, 2009), at 46 (DOE Answer); NRC Staff Answer to Intervention Petitions (Feb. 9, 2009), at 43, 45 (NRC Staff Answer).

²⁵ DOE Answer at 42.

²⁶ LBP-09-6, 69 NRC at 473.

²⁷ Clark County Appeal at 4.

²⁸ *Id.* at 5 (citing LBP-09-6, 69 NRC at 415-16 (slip op. at 53)).

[S]ome TSPA-related contentions *do* assert, explicitly or by implication, that alleged defects in the TSPA will increase the likelihood that dose standards might not be achieved. *Clark, for example, contends that alleged errors “could mean that the risk is greater than reported in TSPA” and that the “TSPA could underestimate the consequences and likelihood of post-closure radioactive releases.” Separate and apart from alleged violation of other specific regulatory requirements that apply to the TSPA, such qualitative predictions — when adequately supported by reasoned affidavits from competent experts — are by themselves sufficient to admit contentions.* During a discussion of TSPA-related contentions before the APAPO [Advisory Pre-license Application Presiding Officer] Board in May 2008, counsel for DOE appeared to agree:

JUDGE BOLLWERK: So what you’re saying is if they have an affidavit from an expert that says, “this [*sic*] is material”, that would suffice?

MR. SILVERMAN: With a sufficient — reasonable explanation that . . . would be appropriate at this stage of the proceeding, yes.²⁹

Reviewing the referenced excerpt in the context of the discussion, we find that the Boards were not expressing an opinion regarding the admissibility of CLK-SAFETY-001. Rather, the purpose of this discussion was to note generally that one type of challenge to the TSPA could take the form of a qualitative prediction that a defect in the TSPA might increase the likelihood of violating the postclosure dose standards. However, as the Boards stated, this type of “TSPA model-based” contention must still be adequately supported, as required by our contention admissibility rules. Later in the decision, CAB-01 went on to discuss CLK-SAFETY-001, and stated a separate rationale for finding it to be inadmissible.³⁰ We do not find LBP-09-6 to be internally inconsistent on this point.

Second, Clark County contends that the Board “[m]erely stating the conclusion that CLK-SAFETY-001 is not in compliance with Commission regulations does not substitute for the reasoned decisionmaking required by the Administrative Procedure Act.”³¹ Clark County points to the Appeal Board’s Waterford decision to bolster its argument that CAB-01 erred by virtue of its brief discussion of CLK-SAFETY-001.³² In that case, the Appeal Board reiterated that a board had a “duty not only to resolve contested issues, but ‘to articulate in reasonable detail

²⁹ LBP-09-6, 69 NRC at 415-16 (emphasis added) (footnote omitted) (citing Clark County Petition at 6, 22; APAPO Board Conference Transcript (May 21, 2008)).

³⁰ LBP-09-6, 69 NRC at 473 (citing the contention’s failure to comply with 10 C.F.R. § 2.309(f)(1)(v) and (vi)).

³¹ Clark County Appeal at 6.

³² *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076 (1983).

the basis' for the course of action chosen A board must do more than reach conclusions; it must confront the facts.'³³ The circumstances of the *Waterford* case are distinguishable from those at issue here. The Appeal Board in *Waterford* considered a merits ruling that followed an evidentiary hearing, whereas CAB-01 addressed only threshold contention admissibility issues. Accordingly, CAB-01 was not tasked with detailed fact-finding. Although it may have been preferable for CAB-01 to provide a more fulsome discussion, in our view the Board has articulated a sufficient, if brief, basis for its decision to reject CLK-SAFETY-001.³⁴ In any event, however, we are entitled to review the record ourselves and amplify CAB-01's findings.³⁵ We take the opportunity to do so here, in response to Clark County's third argument.

Clark County reiterates that it satisfied the contention admissibility standards of 10 C.F.R. § 2.309(f)(1)(v) and (vi) because the contention is supported by expert testimony that articulates a genuine dispute of material fact.³⁶ We disagree. We do not second-guess Clark County's representation that CLK-SAFETY-001 is the culmination of opinions and statements of Clark County's expert witness, Mr. Dennis Bley.³⁷ However, our rules for contention admissibility require more than what Clark County has offered here. Clark County's "unjustified assumption" 1.1.1 is a case in point:

1.1.1 *Database Not Reviewed*. [The] IPAR [Independent Performance Assessment Review Panel] pointed out that they [*sic*] had not reviewed the database used in the analysis. It is not clear that any thorough outside review of the databases used in the SAR was performed.³⁸

Given that Clark County neither challenges DOE's database analysis nor discusses why the suspected failure to have a thorough review of the databases by an independent entity fails to satisfy our regulations, it is unclear to us how this assertion, even assuming its accuracy, articulates a particularized challenge to the application. We are left with the same dilemma with regard to Clark County's other examples. For instance, "inappropriate screening 'analysis'" 3.2.1 states:

3.2.1 *Optimistic Assumption*. Analysis supporting SAR 1.6.3.4.1 in BSC 2007c

³³ Clark County Appeal at 6-7 (quoting *Waterford*, ALAB-732, 17 NRC at 1087 n.12 (citing *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33, 41 (1977) *aff'd*, CLI-78-1, 7 NRC 1 (1978))).

³⁴ Understanding that the schedule for this adjudicatory proceeding is an ambitious one, we still encourage the Boards, in future rulings, to articulate thoroughly the rationale behind their decisions.

³⁵ See *Waterford*, ALAB-732, 17 NRC at 1087 n.12.

³⁶ Clark County Appeal at 7.

³⁷ See Clark County Petition, Attachment 4.

³⁸ Clark County Petition at 12.

assumes that, for flights outside the restricted zone, pilots will eject outside the zone. There is no allowance for entry into the zone as the pilot tries to control or uncertainty [*sic*] and no convincing technical basis.³⁹

As an “unsubstantiated claim of conservatism,” Clark County lists:

2.3.2 *Limited Range of Conservatism.* SAR p. 2.1-40 states naval SNF [Spent Nuclear Fuel] are [*sic*] conservatively modeled as commercial SNF, without demonstrating that this is always conservative.⁴⁰

These, and the other 27 examples Clark County cites in its petition, amount merely to generalized assertions, without specific ties to NRC regulatory requirements, or to safety in general. Such assertions do not provide adequate support demonstrating the existence of a genuine dispute of fact or law with respect to the construction authorization application.⁴¹

Finally, we note that in its reply brief responding to the DOE and Staff objections before the Boards,⁴² and again on appeal, Clark County attempts to rehabilitate this contention by providing supplemental information. However, Clark County is confined to the contention as initially filed and may not rectify its deficiencies through its reply brief or on appeal.⁴³ For all these reasons, we deny Clark County’s appeal, and affirm the Board’s ruling rejecting Contention CLK-SAFETY-001.

B. NRC Staff

1. Legal Contentions

The Boards admitted a set of contentions identified as legal contentions, or as contentions in part appropriate for legal resolution, and recognized that some factual contentions were admitted contingent upon the resolution of a related legal contention. The Boards indicated their intention to decide legal issue contentions on the basis of briefs or oral argument and stated that briefing schedules would be set out in a subsequent order.⁴⁴ On appeal, the Staff challenges this decision, arguing that the legal contentions should be addressed at the outset

³⁹ *Id.* at 19 (citations omitted).

⁴⁰ *Id.* at 16.

⁴¹ *See id.* at 12-21. We also note that Clark County lists thirty asserted uncertainties for CLK-SAFETY-001 in the Clark County Petition whereas on appeal, it lists twenty-seven uncertainties.

⁴² *See generally* Reply of Clark County, Nevada to the Answers of the U.S. Department of Energy and the Nuclear Regulatory Commission Staff (Feb. 24, 2009); Clark County Appeal.

⁴³ *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223 (2004).

⁴⁴ LBP-09-6, 69 NRC at 422.

and dismissed. Specifically, the Staff challenges the Boards' decision to admit legal contentions NEV-SAFETY-004, NEV-SAFETY-005, NEV-SAFETY-006, NEV-SAFETY-009, NEV-SAFETY-010, NEV-SAFETY-011, NEV-SAFETY-012, NEV-SAFETY-013, NEV-SAFETY-019, NEV-SAFETY-139, NEV-SAFETY-146, NEV-SAFETY-149, NEV-SAFETY-161, NEV-SAFETY-169, NEV-SAFETY-171, NEV-SAFETY-184 through NEV-SAFETY-194, NEV-SAFETY-201, NEV-MISC-002, CAL-NEPA-005, NCA-MISC-001, and NYE-SAFETY-004.⁴⁵

The Staff argues that the Boards erred in admitting these contentions because the Boards did not apply all six of the 10 C.F.R. § 2.309(f)(1) contention admissibility criteria to each legal contention and because, for some of the admitted legal contentions, "the legal issue to be briefed is a contention admissibility criterion itself."⁴⁶ According to the Staff, although the Boards did not provide a contention-by-contention rationale, the Boards apparently admitted the legal contentions even though not all of the admissibility criteria were met in each instance.⁴⁷ The Staff maintains that if consideration of a legal issue results in a finding that a contention is outside the scope of this proceeding, or is not material to the Commission's licensing decision, then the contention should not have been admitted in the first place based on its failure to satisfy all six of the admissibility criteria, including section 2.309(f)(1)(iii) and (iv).⁴⁸

In reply, Nevada argues preliminarily that the Staff's general failure to make contention-specific arguments in support of dismissing admitted legal contentions means that the Staff's brief supports, at most, remand to the Boards for additional findings.⁴⁹ But even a remand is unnecessary, according to Nevada, because the Staff's argument that contentions raising purely legal issues must be supported by facts and expert opinion makes no sense.⁵⁰ Nevada argues that the materiality of a legal contention is apparent from the nature of the legal issue without factual allegations.⁵¹ In Nevada's view, because only facts and expert opinion "on which the petitioner intends to rely"⁵² at evidentiary hearing must be stated

⁴⁵ NRC Staff Appeal at 8.

⁴⁶ *Id.* at 10. The Staff lists in this category the following contentions: NYE-SAFETY-004, NEV-SAFETY-004, NEV-SAFETY-005, NEV-SAFETY-006, NEV-SAFETY-146, NEV-SAFETY-201, NEV-SAFETY-161, NEV-SAFETY-169, NEV-SAFETY-171, and CAL-NEPA-005. *See id.*

⁴⁷ *See id.* at 8. For its part, the Staff also declines to discuss the asserted deficiencies of the contentions individually, with the exception of CAL-NEPA-005 and NEV-SAFETY-161, which are discussed *infra*. *See* Staff Appeal at 11-12, 27-28.

⁴⁸ *See id.* at 9.

⁴⁹ Nevada Opposition at 1. According to Nevada, the Staff only provided specific support for dismissing NEV-SAFETY-161. *See id.*

⁵⁰ *See id.*

⁵¹ *See id.* at 2.

⁵² 10 C.F.R. § 2.309(f)(1)(v).

in the petition, and because petitioners do not rely on facts or expert opinion in connection with legal contentions, none must be provided.⁵³ Nevada maintains that the Staff's additional argument — that for some of the legal contentions the legal issue is itself an admissibility criterion — confuses admissibility with the merits determination that will be made after the legal issues are briefed.⁵⁴

In its reply, Nye County argues that the Staff's assertion that the Boards failed to apply all six admissibility criteria ignores the Boards' clear statement that the admitted legal contentions met all of the admissibility criteria and ignores the Boards' rejection of specific arguments raised in opposition to particular contentions.⁵⁵ According to Nye County, the Staff, in its appeal, fails to discuss any specific deficiencies in NYE-SAFETY-004 that warrant overturning the decision to admit the contention.⁵⁶ From Nye County's perspective, the Staff's argument that the Board resolved the issue to be briefed by virtue of admitting NYE-SAFETY-004 is erroneous. Nye County argues that the Board did not resolve the merits of NYE-SAFETY-004, but simply set it for briefing. Moreover, according to Nye County, the "NRC Staff's argument, taken to its logical conclusion, would render all 'legal' contentions inadmissible."⁵⁷

As the Boards point out in their decision,⁵⁸ our rules permit contentions that raise issues of law as well as contentions that raise issues of fact.⁵⁹ It is true that our contention admissibility "requirements are deliberately strict, and [that] we will reject any contention that does not satisfy the requirements."⁶⁰ But this does not require an analysis that disregards reason. We agree, for example, with the Boards' view in this proceeding that requiring a petitioner to allege "facts" under section 2.309(f)(1)(v) or to provide an affidavit that sets out the "factual and/or technical bases" under section 51.109(a)(2) in support of a *legal* contention — as opposed to a *factual* contention — is not necessary. Thus, we find the Boards' interpretation and application of our section 2.309(f)(1) contention admissibility requirements and our section 51.109(a)(2) affidavit requirement reasonable in this proceeding.

Moreover, as the Boards understood, while the differentiation between the treatment of legal and factual contentions was highlighted under our former procedural rules — which *mandated* resolution of legal contentions on the basis

⁵³ See Nevada Opposition at 2.

⁵⁴ See *id.* at 3-4.

⁵⁵ See Nye County Reply at 8.

⁵⁶ See *id.* at 9.

⁵⁷ *Id.* at 10.

⁵⁸ LBP-09-6, 69 NRC at 422.

⁵⁹ See 10 C.F.R. § 2.309(f)(1)(i).

⁶⁰ *USEC Inc. (American Centrifuge Plant)*, CLI-06-9, 63 NRC 433, 437 (2006) (citations omitted).

of briefs or oral argument⁶¹ — our new rules preserve the distinction. Consistent with our effort to simplify and to improve the effectiveness and efficiency of our procedural rules,⁶² our rules accord presiding officers considering proposed legal contentions the flexibility to request briefs or oral argument on a discretionary basis; a request for briefs on legal issues now simply is one of the many tools available to a presiding officer generally in the conduct of a proceeding.⁶³ Particularly in this exceptionally complex proceeding, we find the Boards' request for briefs on legal contentions to be a reasonable exercise of authority and a prudent case management decision.

Consequently, we deny this aspect of the Staff's appeal and affirm the Boards' decision to admit the identified legal contentions.⁶⁴ In the interest of moving forward expeditiously where possible in this proceeding, we emphasize that the Boards should be prompt in issuing an appropriately efficient briefing schedule for these contentions.⁶⁵ We also expect the Boards to provide a thorough and meaningful discussion of the legal issues and the bases for resolving them. The Boards' cursory treatment of legal contentions at the admissibility phase of this proceeding, which is governed by tight deadlines, is understandable. But when considering the merits of such contentions, a full explanation is in order.

2. CAL-NEPA-005 (Project Description)

Contention CAL-NEPA-005 challenges the NRC's adoption determination, with respect to DOE's environmental impact statements, based on the description of the proposed repository capacity. The contention states as follows:

It is not practicable for NRC to adopt DOE's Yucca Mountain FEIS [Final Environmental Impact Statement],[⁶⁶] the Repository SEIS [Supplemental Environmental

⁶¹ See 10 C.F.R. § 2.714(e) (2003) (rescinded) (providing that admitted contentions determined by the Commission or presiding officer to constitute pure issues of law must be decided on the basis of briefs or oral argument).

⁶² See Final Rule: "Changes to Adjudicatory Process," 69 Fed. Reg. 2181 (Jan. 14, 2004).

⁶³ See, e.g., 10 C.F.R. §§ 2.319, 2.331, 2.332, and 2.333.

⁶⁴ The Staff also challenged the Boards' decisions to admit CAL-NEPA-5 and NEV-SAFETY-161, listed here, on separate grounds. We address those arguments *infra*.

⁶⁵ In some cases, the appropriate vehicle for resolution of a legal contention may be through motions for summary disposition. See, e.g., 10 C.F.R. § 2.1025 (describing the authority of the presiding officer to dispose of certain issues on the pleadings).

⁶⁶ U.S. Department of Energy, Office of Civilian Radioactive Waste Management, "Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada" (Feb. 2002) (ADAMS Accession No. ML0326690321).

Impact Statement],[⁶⁷] or the Nevada Rail Corridor SEIS,[⁶⁸] as is required by 10 C.F.R. § 51.109(c), because they are incomplete and inadequate pursuant to NEPA [the National Environmental Policy Act⁶⁹] and NRC regulations at 10 C.F.R. part 51, in that they present an incomplete and inaccurate project description that describes Yucca Mountain as having only a capacity of 70,000 metric tons heavy metal being stored and/or disposed of at Yucca Mountain . . . , with only that amount being transported (including transportation through California), while it is now reasonably foreseeable that Congress, at DOE’s request and upon DOE’s recommendation, may authorize the storage and/or disposal of up to four times that total, or even more; in the alternative, the NEPA documents impermissibly segment the project if DOE plans to issue a supplement to the NEPA documents addressing this reasonably foreseeable capacity increase, either during or after the completion of the [I]icensing [p]roceeding.⁷⁰

Section 114(d) of the Nuclear Waste Policy Act of 1982, as amended, (NWPA) sets a capacity limit on the amount of commercial and government-owned spent nuclear fuel and high-level waste that may be emplaced in the proposed repository which, if approved, would be the first such repository in the United States.⁷¹ California argues that DOE’s NEPA documents, particularly the Repository SEIS,⁷² are incomplete and inadequate because the project description in those documents considers a repository with a capacity consistent with that statutory limit.

In support of its contention, California cites a DOE report recommending that Congress remove the statutory limit for the Yucca Mountain repository, which

⁶⁷ U.S. Department of Energy, Office of Civilian Radioactive Waste Management, “Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada” (June 2008) (ADAMS Accession No. ML081750191) (Repository SEIS).

⁶⁸ U.S. Department of Energy, Office of Civilian Radioactive Waste Management, “Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada — Nevada Rail Transportation Corridor, DOE/EIS-0250F-S2,” and “Final Environmental Impact Statement for a Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada, DOE/EIS-0369” (June 2008) (ADAMS Accession No. ML082460227).

⁶⁹ 42 U.S.C. §§ 4320 *et seq.*

⁷⁰ State of California’s Petition for Leave to Intervene in the Hearing (Dec. 20, 2008) at 37 (citations omitted) (California Petition).

⁷¹ NWPA § 114(d), 42 U.S.C. § 10134(d) (“The Commission decision approving the first [construction authorization] application shall prohibit the emplacement in the first repository of a quantity of spent fuel containing in excess of 70,000 metric tons of heavy metal [MTHM] or a quantity of solidified high-level radioactive waste resulting from the reprocessing of such a quantity of spent fuel until such time as a second repository is in operation”). See 10 C.F.R. § 63.42(d).

⁷² California Petition at 41 (citing challenged sections of the Repository SEIS).

could allow the repository to be expanded to accommodate “three times, or more, the current statutory limit of 70,000 MTHM.”⁷³ California contends that such an increase in capacity is at least reasonably foreseeable, and that NEPA, therefore, requires DOE to include in its environmental analyses the environmental impacts associated with such a capacity increase. If such an analysis is performed at a future time, California complains that DOE would be impermissibly segmenting the project.

CAB-02 admitted CAL-NEPA-005, with little discussion, noting that “because . . . the significance of the current capacity limitation is unclear, CAL-NEPA-005 is admitted as a legal issue contention.”⁷⁴

The Staff appeals this ruling, arguing that CAB-02 erred because the NRC may not, by law, authorize a capacity limit larger than that set by the statute. Therefore, the Staff argues, the associated NEPA documents need only analyze the impacts of the project described in the application — here, a construction authorization for a facility with a 70,000 MTHM capacity limit, and not the impacts of proposed legislation.⁷⁵ The crux of California’s argument in opposition continues to be that it is reasonably foreseeable that the law may change to allow expanded capacity at the proposed Yucca Mountain repository.⁷⁶

We do not disturb CAB-02’s ruling on the admissibility of this contention, particularly given the brevity of the Board’s ruling. As is the case with the other legal contentions admitted in this proceeding, the consideration of CAL-NEPA-005 will benefit from briefing by the parties, and, as discussed above, a Board ruling explaining its rationale for its ultimate determination either to reject or move forward with the contention. We suggest that the Boards, in their further review of CAL-NEPA-005, consider the applicability of the proposition that merely contemplating a certain action — even if accompanied by research or study — does not necessarily constitute a proposal for a major federal action requiring NEPA review.⁷⁷

⁷³ *Id.* at 39 (citing “The Report to the President and the Congress by the Secretary of Energy on the Need for a Second Repository” (Dec. 2008), at 1 (LSN CEC00000613)). DOE submitted this report pursuant to section 161(b) of the NWPA, which required DOE to report to the President and to Congress on the need for a second repository between January 1, 2007, and January 1, 2010. *See* 42 U.S.C. § 10172a(b).

⁷⁴ LBP-09-6, 69 NRC at 479.

⁷⁵ NRC Staff Appeal at 11-12.

⁷⁶ California Opposition at 2.

⁷⁷ *See, e.g., Kleppe v. Sierra Club*, 427 U.S. 390, 404-06 (1976). *Cf. Wilderness Workshop v. U.S. Bureau of Land Management*, 531 F.3d 1220, 1229 (10th Cir. 2008) (“[P]rojects’, for the purposes of NEPA, are described as ‘proposed actions,’ or proposals *in which action is imminent*’”) (emphasis added).

3. *NEI-SAFETY-001 (Direct Disposal of Spent Nuclear Fuel)*

NEI-SAFETY-001 states as follows:

The License Application (“LA”) fails to permit direct disposal of dual purpose canisters (“DPCs”) containing commercial spent nuclear fuel and is therefore inconsistent with “as low as is reasonably achievable” (“ALARA”) principles, unnecessarily generates additional low-level radioactive waste (“LLRW”), and wastes limited resources.⁷⁸

In its SAR, DOE proposes to use Transportation, Aging and Disposal (TAD) canisters for disposal of commercial spent nuclear fuel instead of DPCs because, according to DOE, DPCs are not suitable for disposal purposes.⁷⁹ In its intervention petition, NEI asserted that “at least 1,029 DPCs . . . will be loaded with commercial spent nuclear fuel at reactor sites by the time Yucca Mountain is expected to open.”⁸⁰ As a consequence of using TAD canisters and not DPCs, NEI argued that workers at the GROA and at individual nuclear power plant sites “will be unnecessarily exposed to increased radiation as a result of unloading and reloading these DPCs.”⁸¹ In addition, NEI argued that the use of TAD canisters would create unnecessary low-level radioactive waste, and increase resource use and costs.⁸² CAB-03 admitted NEI-SAFETY-001 without discussion.⁸³

On appeal, the Staff reiterates its opposition to the admissibility of NEI-SAFETY-001 based principally on the same grounds articulated in its answer to NEI’s intervention petition. The Staff first argues that NEI seeks to apply ALARA principles to a design parameter important to postclosure performance, and that, because ALARA considerations do not apply to postclosure activities, NEI-SAFETY-001 poses an issue not material to the findings the NRC must make.⁸⁴ The Staff objects that the contention necessarily involves balancing of preclosure benefits and any postclosure performance reductions, which the Commission sought to avoid by eliminating ALARA considerations from the postclosure period.⁸⁵ NEI counters that its ALARA contention concerns doses during preclosure operations.⁸⁶

⁷⁸ See The Nuclear Energy Institute’s Petition to Intervene (Dec. 19, 2008) at 9 (NEI Petition).

⁷⁹ Yucca Mountain Repository License Application Safety Analysis Report (2008) § 1.5.1.1.1.2.1.2.

⁸⁰ NEI Petition at 11.

⁸¹ *Id.* at 9.

⁸² See *id.*

⁸³ LBP-09-6, 69 NRC at 498 (Attachment A).

⁸⁴ NRC Staff Appeal at 12-13.

⁸⁵ *Id.* at 13.

⁸⁶ NEI Opposition at 17-18.

The Staff further argues that NEI-SAFETY-001 does not satisfy the contention admissibility requirements because the issue raised is, in part, beyond the scope of this proceeding.⁸⁷ To the extent NEI based its contention on the application of ALARA⁸⁸ considerations at nuclear power plant locations, the Staff argues, NEI “does not raise a safety issue within the scope of this proceeding because reactor licensee’s compliance with Part 20, pursuant to 10 C.F.R. § 50.40 is not an issue in this proceeding”⁸⁹ In other words, the Staff contends that ALARA at nuclear power plants is not a consideration under Part 63. In response, NEI argues that limiting the consideration of ALARA to the geographic limits of the GROA is arbitrary and without support.⁹⁰ NEI points to the Statements of Consideration for Part 63, which, in its view, treat “the general public and workers” and “present-day populations and workers” as including populations and workers at any facility, including nuclear power plants.⁹¹ NEI argues that “[h]ad the Commission wanted to limit its consideration only to populations near, and workers at, the repository, it could have and presumably would have so stated.”⁹²

We decline to disturb CAB-03’s admissibility ruling, again (as with other contentions) to give the Boards and ultimately the Commission the benefit of full briefs and a fully developed adjudicatory record. However, Contention NEI-SAFETY-001 presents an issue that merits close consideration. In particular, the Boards should consider whether ALARA considerations at individual plant sites are appropriately part of this proceeding.⁹³

⁸⁷ NRC Staff Appeal at 14-15.

⁸⁸ “As Low As Is Reasonably Achievable,” defined in 10 C.F.R. § 20.1003, is an operating philosophy based on good radiation protection practices and expert licensee judgment in “making every reasonable effort to maintain exposures to radiation as far below . . . dose limits . . . as is practical” taking into account certain prescribed factors as set therein. *See also* Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act, 61 Fed. Reg. 65,120, 65,122 (Dec. 10, 1996).

⁸⁹ NRC Staff Appeal at 14.

⁹⁰ NEI Opposition at 19.

⁹¹ *Id.* at 13 (quoting Final Rule: “Disposal of High-Level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain, NV,” 66 Fed. Reg. 55,732, 55,751 (Nov. 2, 2001)).

⁹² NEI Opposition at 13.

⁹³ *See, e.g.*, 10 C.F.R. § 63.111(a)(1) (requiring that the GROA meet the requirements of 10 C.F.R. Part 20); § 63.111(c) (requiring the performance of a preclosure safety analysis that must demonstrate, among other things, that the requirements of section 63.111(a) are met). *See also* Disposal of High-Level Radioactive Wastes, 66 Fed. Reg. at 55,751 (regarding application of ALARA principles at the repository). We note that, in context of NEI’s standing, CAB-03 found unpersuasive DOE’s argument that “health and safety impacts felt at distant nuclear plant sites caused by the delay in completion of its proposed repository are outside the scope of the proceeding.” LBP-09-6, 69 NRC 435.

4. NEI-SAFETY-002 (Non-TAD Shipments to Yucca Mountain)

NEI-SAFETY-002 states as follows:

Yucca Mountain's surface facility design capability to receive not less than 90% of commercial spent nuclear fuel ("SNF") in Transportation, Aging, and Disposal ("TAD") canisters is inconsistent with "as low as is reasonably achievable" ("ALARA") principles.⁹⁴

In brief, NEI contends that the minimum 90% threshold for receipt of spent nuclear fuel in TADs at the GROA should be reduced to 75% because the radiological exposure of workers who transfer spent nuclear fuel from DPCs to TADs at nuclear power plant locations will be lessened because fewer canisters will need to be unloaded and loaded.⁹⁵ According to NEI, to do otherwise would be inconsistent with ALARA principles.

On appeal, the Staff again rehashes its arguments before the Boards. The Staff argues that NEI-SAFETY-002 is outside the scope of this proceeding for its failure to "allege any potential failure to meet the requirements of Part 63."⁹⁶ The Staff further restates its argument that ALARA considerations under Part 63 are limited to the GROA and do not encompass individual nuclear power reactor sites.⁹⁷

Consistent with our ruling on NEI-SAFETY-001, we decline to reverse the Board's threshold admissibility ruling relating to NEI-SAFETY-002. However, also as noted with respect to NEI-SAFETY-001, the Board should consider whether ALARA considerations at locations other than the GROA are appropriately considered in conjunction with this contention.

5. NEI-SAFETY-003 (Excessive Seismic Design of Aging Facility)

The Staff objects to the Board's admission (without discussion) of NEI-SAFETY-003, which argues that DOE has set an overly conservative seismic design basis for the facility where fuel will be aged during the operations period. NEI argues that:

The design requirement stated in Section 1.2.7.1.3.2.1 of the License Application (LA) Safety Analysis Report (SAR) specifying that the vertical aging overpack system "must withstand a seismic event characterized by horizontal and vertical peak ground accelerations of 96.52 ft/s² (3g) without tipover and without exceeding

⁹⁴ NEI Petition at 13.

⁹⁵ *Id.*

⁹⁶ NRC Staff Appeal at 15.

⁹⁷ *See id.*

canister leakage rates” is excessively conservative, goes beyond the necessary safety margin, and is not consistent with ALARA principles.⁹⁸

NEI argues that various miscalculations in predicting the likelihood and strength of potential seismic activity led DOE to set excessive design requirements for the vertical aging overpack system to be used before the spent fuel casks are placed in the underground repository.⁹⁹ According to one of NEI’s experts, existing storage overpack systems, although designed to withstand seismic events, could not meet DOE’s design standard.¹⁰⁰ This expert states that DOE’s dual requirement that the overpack be free-standing and able to withstand a “3g” earthquake would mean that the “aging casks will likely be designed differently from current dry storage systems, possibly with some structural element or design apparatus to prevent overturning.”¹⁰¹ NEI argues that workers at the Yucca Mountain site would be exposed to increased radiation as they install this “structural element or apparatus,” and that this increased dosage is inconsistent with ALARA principles.¹⁰² In addition, NEI argues that the “excessive” seismic design will lead to unnecessary costs and delays of the Yucca Mountain project.¹⁰³

The Staff argues on appeal that whether DOE’s design will impose “licensing uncertainty,” unnecessary costs, and delays are not questions material to this proceeding.¹⁰⁴ We agree that “licensing uncertainty” and delay are not material questions. The Staff further complains, and we agree, that NEI cites no legal requirement that, before the Staff can make the safety findings associated with the seismic review of the construction authorization application, the Staff must first find both that the design is not “too conservative” and that the associated costs are not excessive.¹⁰⁵

The Staff’s appeal does not address NEI’s third claim that the assertedly “excessive” design standard would effectively cause workers at the aging facility to incur unnecessary doses of radiation as they attempt to modify the overpacks,

⁹⁸ NEI Petition at 17.

⁹⁹ *See id.* at 17, Attachment 9, Affidavit of Christopher W. Fuller, Michael G. Gray, and Daniel R.H. O’Connell in Support of Proposed Contention NEI-SAFETY-003.

¹⁰⁰ *See id.*, Attachment 10, Affidavit of Brian Gutherman in Support of Proposed Contention NEI-SAFETY-003, at 2-3.

¹⁰¹ *See id.*, Attachment 10.

¹⁰² *See id.* at 21.

¹⁰³ *See id.* at 18.

¹⁰⁴ NRC Staff Answer at 17-18.

¹⁰⁵ With respect to seismic activity, as with other event sequences, the Staff must determine whether the potential event sequence falls into either Category 1 or Category 2. *See* 10 C.F.R. § 63.2 (definition of “event sequence”). The preclosure safety analysis must demonstrate that in the event of Category 1 or Category 2 event sequences, prescribed dose limits will be met. *See* 10 C.F.R. § 63.111(c).

and that this violates ALARA principles.¹⁰⁶ The Staff does not dispute that operations at the aging facility during the preclosure period are subject to the requirement that doses to workers should be ALARA.¹⁰⁷ NEI-SAFETY-003, therefore, raises an issue whether the design of the aging facility will increase doses to workers in violation of ALARA principles.

Although, as stated above, we agree that licensing uncertainty and delay are not issues material to and within the scope of this proceeding, the issue whether alleged “excessive” conservatism could lead to violation of ALARA during the operations period is within the scope of and material to this proceeding. We affirm the Board’s admission of this contention as so limited.

6. NEI-SAFETY-004 (Low Igneous Event Impact on TSPA)

The Staff appeals the Board’s admission (albeit without discussion or explanation) of NEI-SAFETY-004, because it raises claims of “excessive conservatism” — which, the Staff argues, are immaterial to and outside the scope of the licensing proceeding. Here again, NEI claims that excessive conservatism will lead to “licensing uncertainty” and delay in building the repository:

The Department of Energy (DOE) in the License Application (LA) has modeled the scenario of a volcano at the Yucca Mountain site in the Total System Performance Assessment (TSPA). Based on an unreasonable set of assumptions that postulate the complete failure of every waste package in the repository, DOE conservatively concludes that intrusive igneous events that intersect the repository account for approximately 40% of the total dose over a 10,000 year period. Based on an analysis and calculation by the Electric Power Research Institute (EPRI), DOE has been excessively conservative in its treatment in the LA TSPA of the consequences of a potential igneous event. NEI contends that in fact substantial additional safety margin exists in this area. NEI contends that if DOE considered a reasonably expected intrusive igneous scenario, the related consequences would show no significant release of radionuclides. DOE’s conservative treatment and results could contribute to licensing uncertainty and could delay the development of the repository.¹⁰⁸

¹⁰⁶ In its answer to NEI’s initial pleading, though not in its appeal, the Staff argued that NEI’s claim that the overpack would have to be modified onsite in some manner causing increased doses to workers is “speculative” and ignores contrary statements in the SAR. *See* NRC Staff Answer at 128.

¹⁰⁷ The Commission’s Part 63 regulations provide that the geologic repository operations area must meet the requirements of Part 20. *See* 10 C.F.R. § 63.111(a). Part 20, in turn, requires licensees to “use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses that are as low as reasonably achievable (ALARA).” 10 C.F.R. § 20.1101(b).

¹⁰⁸ NEI Petition at 23.

In short, NEI claims that DOE’s “unreasonably pessimistic” assumptions about magma behavior and of storage cask failure “lead[] to a perception of reduced licensing margin.”¹⁰⁹

In contrast to NEI-SAFETY-003, NEI-SAFETY-004 does not argue that DOE’s “excessive” conservatism with respect to future igneous activity will lead to a corresponding safety violation, either during the period of operations or beyond. Instead, NEI seeks to prosecute this contention in order to demonstrate that there is a “margin” of safety, which, NEI hopes, will speed the licensing and development of the repository.¹¹⁰ NEI explains, in opposing the Staff’s appeal, that it proposes to “alter the licensing basis for the project” in order to “increase DOE’s flexibility in the future in developing, constructing, and operating the facility.”¹¹¹

We agree with the Staff that “licensing uncertainty and possible delay do not fall within the safety, security, and technical or environmental standards that the NRC considers.”¹¹² The Hearing Notice specified that the matters to be considered in this proceeding are “whether the application satisfies the applicable safety, security and technical standards of the Atomic Energy Act of 1954, as amended (AEA) and NWPA, and the NRC’s standards in 10 C.F.R. Part 63 for construction authorization for a high-level waste geologic repository.”¹¹³ NEI has failed to raise an issue material to the findings the NRC must make in order to approve this license application. While NEI explains its position and supports its argument with expert opinion, it does not explain how its concerns — costs and delay — are material. Our regulations set a minimum standard for safety, not a maximum. We therefore reverse CAB-03’s ruling admitting this contention.

7. *NEI-SAFETY-005 (Conservatism in the Postclosure Analysis)*

NEI-SAFETY-005 states as follows:

The postclosure criticality analysis described in Section 2.2.4.1.1 of the License Application (“LA”) Safety Analysis Report (“SAR”) provides a substantial safety margin, is excessively conservative, and will unnecessarily lead to the expectation that disposal control rod assemblies be inserted in some fuel assemblies at nuclear power plants prior to shipment to disposal.¹¹⁴

¹⁰⁹ *Id.* at 24-25.

¹¹⁰ *See* NEI Opposition at 14-15.

¹¹¹ *Id.* at 15.

¹¹² NRC Staff Appeal at 19.

¹¹³ Notice of Hearing, 73 Fed. Reg. at 63,029.

¹¹⁴ NEI Petition at 31.

NEI challenges the asserted overconservatism of DOE's postclosure criticality analysis.¹¹⁵ Overall, NEI argues that DOE's "excessively conservative" postclosure criticality analysis will effectively require licensees to unnecessarily insert control rod assemblies into some fuel assemblies prior to transportation of the spent fuel to the repository.¹¹⁶ According to NEI, such a practice will (a) increase occupational doses to workers at nuclear power plant sites, (b) require unnecessary design and operational costs to be paid out of the Nuclear Waste Fund, and (c) cause delays in licensing new TAD canister designs.¹¹⁷

Here again, the crux of the Staff's argument is that ALARA considerations in connection with an increase of worker exposures at nuclear power plant sites are beyond the scope of this construction authorization proceeding. For its part, NEI reiterates its argument that the Staff is unable to point to any support for its assertedly narrow interpretation of Part 63, limiting ALARA considerations to the boundaries of the GROA.¹¹⁸

Consistent with our rulings relating to NEI-SAFETY-001 and -002, we decline to disturb the Board's admissibility ruling here.¹¹⁹

8. *NEI-SAFETY-006 (Necessity of Drip Shields)*

NEI-SAFETY-006 states as follows:

The drip shields that the Department of Energy ("DOE") proposes as part of the Engineered Barrier system ("EBS") are not necessary because the repository is capable of meeting regulatory requirements with significant performance margin and defense in depth without drip shields. Installation of the drip shields will result in significant and unnecessary radiation exposures, resource use, and costs, and is therefore inconsistent with "as low as is reasonably achievable" ("ALARA") principles.¹²⁰

In its intervention petition, NEI argued that DOE made several overly con-

¹¹⁵ *Id.* at 33.

¹¹⁶ *Id.* at 32. We reiterate that, in and of itself, the assertion that DOE's analysis is overly conservative does not rise to the level of an admissible contention because "over-conservatism" is not an issue material to a finding that NRC must make in this proceeding.

¹¹⁷ *Id.* at 31-33.

¹¹⁸ See NEI Opposition; Reply of the Nuclear Energy Institute to the Answers to Its Petition to Intervene by the Department of Energy, the NRC Staff, and the State of Nevada (Feb. 24, 2009).

¹¹⁹ The Staff does not challenge NEI's arguments in connection with increased operational costs or licensing delays. We observe, however, consistent with our finding on NEI-SAFETY-003, that it does not appear to us that NEI has articulated a basis for finding that either of these matters is material to a finding NRC must make in this proceeding.

¹²⁰ NEI Petition at 35.

servative assumptions in its postclosure performance analyses. According to NEI, these assumptions led DOE to include unnecessary drip shields in the proposed repository design.¹²¹ NEI-SAFETY-006 argues that drip shields are not necessary for compliance with our requirements. Therefore, NEI maintains, their installation would be inconsistent with ALARA principles because installation of the drip shields would result in significant and unnecessary radiation exposures to workers at the GROA.¹²²

The Staff argues on appeal that DOE's decision to install drip shields is a design decision affecting postclosure repository performance; because it does not pertain to preclosure repository operations, the Staff argues, the contention raises no issue material to a finding the NRC must make. According to the Staff, this is so because ALARA principles do not apply to the achievement of postclosure performance objectives.¹²³ NEI counters that the Staff misunderstands the contention, which, NEI claims, addresses more than the ALARA implications of drip shield installation.¹²⁴ Rather, NEI states that the contention questions the need for drip shields as part of the design, and addresses the postclosure safety analysis and related performance standards and objectives.¹²⁵ Further, NEI articulates a disagreement with the Staff with respect to the interpretation of the rules governing the use of ALARA principles in this proceeding.¹²⁶

NEI-SAFETY-006 presents, in some ways, the converse of the issue presented in Contention NEV-SAFETY-161, which we discuss *infra*, and other admitted contentions regarding the proposed drip shields.¹²⁷ We decline to disturb CAB-03's ruling admitting this contention, and find that the consideration of NEI-SAFETY-006 in tandem with other admitted contentions relating to the proposed drip shields, including NEV-SAFETY-161, would benefit from the development of a more complete adjudicatory record.

9. NEV-MISC-003 (*License Application References*)

NEV-MISC-003 states as follows:

¹²¹ *See id.*

¹²² *See id.* at 35-36.

¹²³ NRC Staff Appeal at 22.

¹²⁴ NEI Opposition at 31.

¹²⁵ *Id.* at 31-32 (“NEI is arguing that, due to other conservatisms and oversimplifications in the analysis, drip shields are not necessary to meet the *established* performance standards”) (emphasis in original).

¹²⁶ *Id.* at 32-33.

¹²⁷ *See, e.g.*, State of Nevada's Petition to Intervene as a Full Party (Dec. 19, 2008) at 757 (NEV-SAFETY-143), 765 (NEV-SAFETY-145) (Nevada Petition).

Error of Omission: The LA SAR is insufficient on its face because it cannot be determined whether its safety conclusions are correct without also considering about 196 references listed therein, but as provided in LA General Information Subsection 1.4.1 at 1-21, DOE refuses to incorporate these references into the LA.¹²⁸

NEV-MISC-003 claims that DOE's SAR is "incomplete and inadequate" because 196 documents DOE provided with its application are identified in the SAR as "General References," but were not formally incorporated by reference in the license application, pursuant to 10 C.F.R. § 63.23.¹²⁹ These general references include "environmental studies, technical reports, system description documents, facility description documents, or selected calculations," and also "codes and standards."¹³⁰ DOE's application states that these references "provide background information or additional detail that will facilitate review of the application," but are not "part of the license application."¹³¹ For "informational purposes," DOE provided copies of reference documents in electronic format when it submitted the license application.¹³²

In NEV-MISC-003, Nevada argues that because its experts "usually found it impossible" to review safety conclusions in the SAR without also "considering scientific facts and analyses in the referenced documents," the SAR is "deficient on its face," at least with respect to the SAR subsections addressed in Nevada's contentions.¹³³ Nevada argues that NEV-MISC-003 is material to the findings that the NRC must make because "10 C.F.R. § 63.31 provides that safety findings are to be made 'on review and consideration of an application.'"¹³⁴ Nevada therefore concludes that the application itself — excluding referenced documents not expressly incorporated by reference — "must be sufficiently complete to

¹²⁸ Nevada Petition at 1149.

¹²⁹ *Id.* at 1150. *See generally id.* at 1149-51.

¹³⁰ Yucca Mountain Repository License Application, Rev. 0 (June 2008), General Information, § 1.4.1 at 1-21 (ADAMS Accession No. ML081560408).

¹³¹ *Id.*

¹³² *See* Yucca Mountain Repository License Application for Construction Authorization Transmittal Letter, Edward F. Sproat, III (DOE), to Michael F. Weber (NRC) (June 3, 2008) (ADAMS Accession No. ML081550567).

¹³³ *See* Nevada Petition at 1150.

¹³⁴ *Id.* at 1149 (quoting 10 C.F.R. § 63.31). Section 63.31 states, "On review and consideration of an application and environmental impact statement submitted under this part, the Commission may authorize construction of a geologic repository operations area at the Yucca Mountain site if it determines" that the required safety, common defense and security, and environmental findings in 10 C.F.R. § 63.31(a)-(c) are satisfied.

support all of the necessary *Commission* compliance and safety findings.’’¹³⁵ NEV-MISC-003 ‘‘raises the issue whether the safety findings required by 10 C.F.R. § 63.31(a) can be made on the basis of the information in the [DOE] SAR itself.’’¹³⁶

The Staff appeals CAB-02’s decision to admit NEV-MISC-003, arguing that Nevada failed to establish a genuine dispute on a material issue of fact or law as the NRC contention admissibility standards require. Specifically, the Staff argues that Nevada failed to cite ‘‘any provision in the Commission’s regulations that requires the LA to be a ‘stand-alone’ document’’ in terms of the Staff’s ‘‘assessment of the safety conclusions in the SAR.’’¹³⁷

We do not disturb CAB-02’s threshold judgment on contention admissibility, given that this is one of numerous other admitted contentions raising legal questions that the Board can resolve on the basis of additional briefing. But while we do not second-guess CAB-02’s contention admissibility ruling, the contention appears problematic in several respects.

First, it is not clear to us what *meaningful* difference formal ‘‘incorporation by reference’’ ultimately would make in this proceeding — in either the adjudicatory hearing or the Staff’s technical review — given that the application cites all reference documents and those documents appear to be as available and subject to verification and challenge as they would have been had DOE ‘‘incorporated’’ them. Second, section 63.31 does not appear to preclude citing (as opposed to incorporating) references in the application. Third, to the extent that the contention may question the Staff’s review, such claims are improper;¹³⁸ moreover, the Staff has not yet issued its Safety Evaluation Report, and it would be premature to speculate about any Staff safety findings or the specific grounds for them.

These matters should be addressed by the Board after it has the benefit of full briefing and argument.

¹³⁵ State of Nevada’s Reply to NRC Staff’s Answer to Nevada’s Petition to Intervene as a Full Party (Feb. 24, 2009) (Nevada Reply) at 781 (emphasis in original); Nevada Opposition at 5 (emphasis in original).

¹³⁶ Nevada Petition at 1149. Nevada also claims that 10 C.F.R. § 63.24 ‘‘reinforces the concept’’ that only the license application ‘‘is the basis for the NRC’s safety review.’’ See Nevada Petition at 1149. Section 63.24(a) states that an ‘‘application must be as complete as possible in light of the information that is reasonably available at the time of docketing.’’ See 10 C.F.R. § 63.24. NEV-MISC-003 additionally challenges whether ‘‘DOE has complied with § 63.24.’’ Nevada Petition at 1149.

¹³⁷ NRC Staff Appeal at 23-24.

¹³⁸ See *Curators of the University of Missouri* (TRUMP-S Project), CLI-95-1, 41 NRC 71, 121-22 (1995).

10. NEV-SAFETY-001 and NEV-SAFETY-002 (Management Integrity and Competence)

Nevada, in Contentions NEV-SAFETY-001 and NEV-SAFETY-002, seeks to litigate the management integrity and management ability of DOE, respectively. Nevada stated the contentions as follows:

NEV-SAFETY-001: The LA cannot be granted because DOE lacks the requisite integrity to be an NRC licensee.

NEV-SAFETY-002: The LA cannot be granted because DOE lacks the requisite management ability to construct and operate a safe repository.¹³⁹

CAB-01 admitted both contentions for hearing.¹⁴⁰ But CAB-01 specifically directed our attention to the “apparent incongruity of one federal agency — even though an independent regulatory commission — presiding over and ultimately reaching a decision about the integrity and management competence of another federal department.”¹⁴¹ As discussed below, we reverse CAB-01’s rulings on these two contentions.

a. Selection of DOE Under the NWPA

We find that NEV-SAFETY-001 and NEV-SAFETY-002 amount to impermissible challenges to the NWPA, and to actions by the President and the Congress under the statutory scheme established by the NWPA, and are therefore beyond the scope of this proceeding. In the NWPA, Congress designated DOE, an executive agency, as the body solely responsible for constructing and operating the Yucca Mountain repository.¹⁴² Subsequently, the President and Congress found the Yucca Mountain site suitable, based on DOE’s site characterization, and directed DOE to file the Yucca Mountain repository application that is now before us.¹⁴³ In these circumstances, we lack authority to consider questions of DOE’s overall management integrity and competence. Congress would not have directed DOE to file a construction authorization application with the NRC if

¹³⁹ Nevada Petition at 16, 28.

¹⁴⁰ LBP-09-6, 69 NRC at 461-70.

¹⁴¹ *Id.*, 69 NRC at 470.

¹⁴² See NWPA § 114(b), 42 U.S.C. § 10141(b) (“If the President recommends to Congress the Yucca Mountain Site . . . the Secretary shall submit to the Commission an application for a construction authorization for a repository”).

¹⁴³ See Nuclear Waste Policy Amendments Act of 1987, Pub. L. No. 100-203, § 5011, 101 Stat. 1330; Act of July 23, 2002, Pub. L. No. 107-200, 116 Stat. 735 (2002) (enacting a joint resolution approving the development of a repository at Yucca Mountain). See also *Nuclear Energy Institute v. Environmental Protection Agency*, 373 F.3d 1251, 1260-61 (D.C. Cir. 2004).

Congress did not believe DOE had the necessary competence and integrity to plan, construct, and operate the facility. DOE's institutional capability to take on that task undergirds the NWSA statutory scheme.

In its answer opposing NEV-SAFETY-001 before the Board, DOE pointed out that, in designating DOE as the sole construction authorization applicant, "Congress concluded that DOE, as an agency of the federal government, not only possesses the requisite attributes of an applicant, but is the *only* appropriate applicant for this license."¹⁴⁴ We fully agree with DOE on this point. By assigning DOE the sole high-level waste disposal function by statute, Congress foreclosed litigation in this proceeding over whether DOE is an appropriate applicant for the proposed repository. A petitioner may not challenge applicable statutory requirements as part of an administrative adjudication.¹⁴⁵ For this reason, NEV-SAFETY-001 and NEV-SAFETY-002 fundamentally constitute collateral attacks on the NWSA, and are beyond the scope of this proceeding.

The circumstances of this case are quite different from cases in which the NRC considers the "character" and "competence" of a private enterprise, not under the government's control.¹⁴⁶ The consideration of management integrity involving private applicants or licensees is grounded in section 182a of the Atomic Energy Act of 1954, as amended (AEA), which provides that a license application shall provide information "as the Commission may deem necessary" to decide, among other things, "the character of the applicant."¹⁴⁷ As DOE observes, the legislative history underlying the AEA suggests that this provision originally was intended "to provide the Atomic Energy Commission with the authority to ensure that otherwise unknown *private* applicants possessed the requisite character to be licensed under the AEA."¹⁴⁸

Here, however, while Congress has instructed NRC to review the adequacy of DOE's application, Congress has already determined DOE as the appropriate license applicant, indeed the *only* appropriate applicant. There is no justification for NRC to inquire again into the same issue. DOE (unlike a private applicant) is

¹⁴⁴ Answer of the U.S. Department of Energy to the State of Nevada's Petition to Intervene (Jan. 16, 2009) at 78 (emphasis in original) (DOE Answer).

¹⁴⁵ *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20 (1974) (citing *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), 4 AEC 787, 788 (1972)); *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Unit 1), LBP-07-11, 66 NRC 41, 57-58 (2007).

¹⁴⁶ See, e.g., *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25 (1993); *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-85-9, 21 NRC 1118, 1136-40, *aff'd*, *In re Three Mile Island Alert, Inc.*, 771 F.2d 720 (3d Cir. 1985), *cert. denied*, 475 U.S. 1082 (1986); *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-812, 22 NRC 5, 48-51 (1985).

¹⁴⁷ AEA § 182a, 42 U.S.C. § 2232(a).

¹⁴⁸ DOE Answer at 76 (quoting S. Rep. No. [83-]1699, at 7, 9 (1954)).

politically accountable. Thus, institutional “integrity” or “competence” issues, of the kind Nevada would like to litigate at NRC, are reparable through the political process. For example, the President must nominate and the Senate must confirm the appointment of DOE’s senior management. The Department is subject to the continuing oversight of Congress, constrained to comply with various statutes that address the integrity and accountability of federal programs, and is subject to the audit and investigatory powers of an Inspector General. Under these circumstances, the purposes of section 182a would not be served by NRC’s assessing claimed DOE failures that occurred under different administrations and different conditions. Moreover, as a practical matter, it is not sensible for us to divert scarce licensing resources to potentially complex mini-trials on alleged past DOE misdeeds — some entirely unrelated to the construction authorization application. It is far from clear how such mini-trials would accurately forecast DOE’s ability to manage the Yucca Mountain project under current and future leadership.¹⁴⁹

Finally, we observe that our decision not to entertain Nevada’s integrity and competence contentions is consistent with our practice of extending comity to other governmental entities — federal, state, local, and tribal.¹⁵⁰ Our decision also is consistent with the longstanding “presumption of regularity,” under which adjudicatory bodies presume, absent strong and concrete evidence otherwise, that government agencies and their employees will do their jobs honestly and properly.¹⁵¹ We do not mean to suggest, of course, that the NRC will not scrutinize DOE’s construction authorization application with care, or that the NRC would hesitate to reject that application if it is fatally flawed. In that way, we will

¹⁴⁹ See, e.g., *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 365-67 (2001) (historical actions by an applicant or licensee are not relevant to its current fitness unless there is some “direct and obvious” relationship between the asserted character issues and the licensing action in dispute).

¹⁵⁰ See, e.g., *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-83-61, 18 NRC 700, 702 (1983) (exempting the Federal Emergency Management Agency from discovery, due to its “unique position” in our adjudicatory proceedings’). Cf. *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-77-25, 6 NRC 535, 537 (1977) (permitting the Commonwealth of Massachusetts to participate in the appellate portion of a proceeding despite the fact that procedural rules would have barred its participation); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-862, 25 NRC 144, 150 & n.18 (1987) (referring to a Commission determination to permit the participation of state governors and members of Congress with respect to a Staff proposal, in advance of rulemaking); *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), LBP-83-26, 17 NRC 945, 946-47 (1983) (granting, “as a matter of comity,” the State of Texas’ motion for an extension of time within which to conduct discovery, and in so doing, implying that it was applying a less stringent standard to the State than it would apply to other litigants).

¹⁵¹ See *U.S. Department of Energy* (High-Level Waste Repository), CLI-08-11, 67 NRC 379, 384 (2008) (citing cases). See generally *National Archives & Records Administration v. Favish*, 541 U.S. 157, 174 (2004); *Withrow v. Larkin*, 421 U.S. 35, 55 (1975).

fulfill our responsibility to protect public health and safety and the environment at Yucca Mountain, just as we fulfill it in connection with all of our duties.¹⁵² But that responsibility does not require us to go beyond the application itself and inquire broadly into DOE's institutional honesty and capability.

For all of these reasons, we reverse CAB-01's rulings admitting Contentions NEV-SAFETY-001 and NEV-SAFETY-002.

b. The Board's Interpretation of AEA § 11s

In concluding that it had statutory authority to consider DOE's competence and character, CAB-01 relied in part on its threshold finding that DOE is a "person" under AEA § 11s, which defines "person" to include all federal agencies "other than the Commission."¹⁵³ CAB-01 concluded from this that the NRC has authority to consider DOE's character and competence under section 182a of the AEA, just as it would any other "person's." On appeal, the Staff challenges the Board's conclusion that DOE is a "person" under section 11s. The Staff asserts that, to the extent "personhood" under section 11s is a prerequisite for our consideration of those two issues, we lack statutory authority to do so.¹⁵⁴ We agree with the Staff that the Board erred in determining that DOE was a "person" under section 11s, although as we explain above, there are also other reasons for reversing the Board's rulings on Contentions NEV-SAFETY-001 and NEV-SAFETY-002.

As the Staff argues, and contrary to CAB-01's view, DOE is not a "person" for purposes of AEA § 11s. In the Energy Reorganization Act of 1974 (ERA),¹⁵⁵ Congress abolished the Atomic Energy Commission (AEC),¹⁵⁶ assigning the defunct agency's regulatory authority to the new NRC¹⁵⁷ and its promotional authority to the new Energy Research and Development Administration (ERDA).¹⁵⁸ Both new organizations thereby inherited the AEC's status as "the Commission" for purposes of section 11s. When Congress created DOE several years later and incorporated ERDA into the new Department,¹⁵⁹ DOE then inherited ERDA's status as "the Commission" for purposes of section 11s. Consequently, at least

¹⁵² In addition, of course, the NRC retains the authority under the NWPA and the Energy Reorganization Act to take appropriate action to remedy DOE misconduct.

¹⁵³ LBP-09-6, 69 NRC at 463. *See* 42 U.S.C. § 2014(s)(1) (defining "person" as including, *inter alia*, "any . . . Government agency other than the Commission").

¹⁵⁴ NRC Staff Appeal at 26.

¹⁵⁵ 42 U.S.C. §§ 5801 *et seq.*

¹⁵⁶ ERA § 104(a), 42 U.S.C. § 5814(a).

¹⁵⁷ *See id.* § 201, 42 U.S.C. § 5841.

¹⁵⁸ *See id.*; *Abraham v. Hodges*, 255 F. Supp. 2d 539, 552 n.9 (D.S.C. 2002).

¹⁵⁹ H.R. Rep. No. 103-888, § 2.5 (1995) ("The functions of ERDA were transferred to DOE upon its creation in 1977 by the Department of Energy Organization Act").

insofar as the Board sought to rely on the definition of “person” in section 11s as statutory authority to apply the provisions of section 182a, DOE’s status as a “non-person” under that section precludes our examination of DOE’s character and competence under section 182a.¹⁶⁰

11. NEV-SAFETY-161 (Role of Drip Shield)

NEV-SAFETY-161 states as follows:

The LA violates the requirements that there be “multiple barriers,” because its safety depends dispositively upon a single element of the engineered barrier system — the drip shield.¹⁶¹

Nevada’s fundamental argument, in NEV-SAFETY-161, is that without drip shields, DOE cannot comply with the postclosure performance requirements.¹⁶² Specifically, Nevada asserts that the construction authorization application violates the NWPA “multiple barrier” requirement because, if the drip shields are not fabricated, assembled, transported, or installed properly, or fail to operate as contemplated in the application, then the application cannot demonstrate that there will be a “reasonable expectation” of postclosure safety.¹⁶³ To support its assertion, Nevada relies on a recalculation of DOE’s “Expected Annual Dose for the Drip Shield Early Failure Modeling Case,” arguing that the Environmental Protection Agency’s dose standards will be exceeded if the waste packages are unprotected by drip shields.¹⁶⁴

CAB-03 admitted Contention NEV-SAFETY-161, without discussion, as one of several legal contentions, stating that “further briefing will be required.”¹⁶⁵ On

¹⁶⁰ However, in section 202(3) of the ERA, even though DOE is not a “person” subject to regulation under the Atomic Energy Act, Congress provided the NRC with the “licensing and related regulatory authority” found in specified chapters of the AEA that authorize it to review the Yucca Mountain application. *See* 42 U.S.C. § 5842. In explaining the division of authorities between the NRC and ERDA (now DOE), the Committee on Government Operations specified (though the text of the ERA does not) which sections of the AEA would apply to each organization after enactment of the ERA. *See* H.R. Rep. No. 93-707 (1973). The Report states that, with limited exceptions, the definitions in section 11 of the AEA apply to both successor agencies. *See id.* at 25.

¹⁶¹ Nevada Petition at 857.

¹⁶² *See id.*

¹⁶³ *Id.* (citing NWPA § 121(b)(i)(B), 42 U.S.C. § 10141(b)(1)(B), 10 C.F.R. §§ 63.113(a)-(d) (postclosure performance objectives), 63.115(a)-(c) (requirements for multiple barriers)). *See* 10 C.F.R. § 63.31(a)(2).

¹⁶⁴ Nevada Petition at 858-59 (citing “Total System Performance Assessment Model/Analysis for the License Application,” Fig. ES-46(a) at FES-460 (Jan. 2008) (LSN DEN001579005)).

¹⁶⁵ LBP-09-6, 69 NRC at 481.

appeal, the Staff advances two arguments that CAB-03 admitted NEV-SAFETY-161 in error. First, the Staff argues that NEV-SAFETY-161 raises an issue that is not material to the proceeding, because the United States Court of Appeals for the District of Columbia Circuit already has ruled on the issue.¹⁶⁶ According to the Staff, Nevada advances the same argument here as that rejected by the DC Circuit.¹⁶⁷

Nevada asserts in response that the issue before the D.C. Circuit was different from the argument made in NEV-SAFETY-161.¹⁶⁸ According to Nevada, the issue in NEV-SAFETY-161 is “whether after exercising the design flexibility that Part 63 gave it, DOE chose a repository design that complies with Part 63,”¹⁶⁹ whereas the D.C. Circuit considered the question whether Part 63’s “failure to include pre-established, quantitative subsystem performance requirements” violated NWPA § 121(b)(1)(B).¹⁷⁰

The Staff also argues that the contention improperly relies on “speculative scenarios.”¹⁷¹ The Staff asserts that “Nevada’s arguments rely on the implied premise that future events are inherently unknowable.”¹⁷² Nevada responds that its hypothetical scenario, in which waste packages are not protected by drip shields, considers the consequences of the drip shields’ postulated absence, and is “realistic[,] if not highly likely.”¹⁷³

We decline to weigh these arguments here. As is the case for many of the appealed “legal issue” contentions, we recognize that, perhaps because of tight deadlines, the Boards did not provide a full legal analysis of each and every legal contention raised in this extraordinarily complex proceeding. We affirm CAB-03’s admissibility ruling on the “drip shield” issue so that the parties may have an opportunity to develop their positions on these disputed issues in briefing and argument before the Boards, and the Boards will have the opportunity to make a reasoned decision.

III. CONCLUSION

This proceeding is undeniably unique. As we recently stated, “the Yucca

¹⁶⁶ *Nuclear Energy Institute v. EPA*, 373 F.3d at 1295 (holding that the NWPA “does not, as Nevada contends, require that each barrier type provide a quantified amount of protection or, indeed, independent protection”).

¹⁶⁷ NRC Staff Appeal at 27.

¹⁶⁸ Nevada Opposition at 9.

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ NRC Staff Appeal at 27.

¹⁷² *Id.*

¹⁷³ Nevada Opposition at 12.

Mountain matter is *sui generis*, in that (among other things) the duration of the Staff's review is time-limited by statute, and the adjudicatory proceeding promises to be unusually complex."¹⁷⁴ Consequently, we address here only those specific issues before us on appeal and our silence on all other matters is not to be interpreted as approval or disapproval of unreviewed rulings. Consistent with prior case law and practice, and in the absence of clear error or abuse of discretion, we have afforded the Boards our traditional deference on threshold issues, such as contention admissibility.¹⁷⁵

While we acknowledge the schedule constraints under which the Boards worked to issue their rulings, and commend them for their timely effort, our ability to review Board rulings is only as strong as the adjudicatory record before us. Where a record is thin and the Boards' decision provides little opportunity to examine the Boards' underlying reasoning, we are challenged in our ability to conduct a thoroughgoing review on appeal. We expect that, going forward, the Boards will issue decisions that clearly, and with specificity, address the issues before them. Comprehensive, reasoned rulings will contribute directly to a fuller and more transparent record of decision, which will, in turn, benefit the parties, stakeholders, and reviewing bodies. This is the standard for all of our adjudications, and despite its unusual scope and complexity, this proceeding should be no exception.

In conclusion, we *affirm* the Boards' admissibility rulings with respect to the following contentions: NEV-SAFETY-004, NEV-SAFETY-005, NEV-SAFETY-006, NEV-SAFETY-009, NEV-SAFETY-010, NEV-SAFETY-011, NEV-SAFETY-012, NEV-SAFETY-013, NEV-SAFETY-019, NEV-SAFETY-139, NEV-SAFETY-146, NEV-SAFETY-149, NEV-SAFETY-161, NEV-SAFETY-169, NEV-SAFETY-171, NEV-SAFETY-184, NEV-SAFETY-185, NEV-SAFETY-186, NEV-SAFETY-187, NEV-SAFETY-188, NEV-SAFETY-189, NEV-SAFETY-190, NEV-SAFETY-191, NEV-SAFETY-192, NEV-SAFETY-193, NEV-SAFETY-194, NEV-SAFETY-201, NEV-MISC-002, NEV-MISC-003, CAL-NEPA-005, NCA-MISC-001, NYE-SAFETY-004, NEI-SAFETY-001, NEI-SAFETY-002, NEI-SAFETY-005, NEI-SAFETY-006, and CLK-SAFETY-001.

We *affirm in part, and reverse in part*, the admissibility ruling of CAB-03 with respect to Contention NEI-SAFETY-003. We *reverse* the admissibility rulings of CAB-01 with respect to Contentions NEV-SAFETY-001 and NEV-

¹⁷⁴ *U.S. Department of Energy (High-Level Waste Repository)*, CLI-08-14, 67 NRC 402, 406 (2008).

¹⁷⁵ *AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station)*, CLI-09-7, 69 NRC 235, 260 (2009), citing *AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station)*, CLI-06-24, 64 NRC 111, 121 (2006).

SAFETY-002, and the admissibility ruling of CAB-03 with respect to Contention
NEI-SAFETY-004.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 30th day of June 2009.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

G. Paul Bollwerk, III, Chairman
Nicholas G. Trikouros
Dr. James F. Jackson

In the Matter of

Docket No. 52-011-ESP
(ASLBP No. 07-850-01-ESP-BD01)

**SOUTHERN NUCLEAR OPERATING
COMPANY**

**(Early Site Permit for Vogtle
ESP Site)**

June 22, 2009

In this 10 C.F.R. Part 52 proceeding regarding the application of Southern Nuclear Operating Company (SNC) for an early site permit (ESP) for an additional two reactors at the existing Vogtle Electric Generating Plant (VEGP) site, in a Partial Initial Decision ruling on the merits of three admitted environmental contentions (ECs) regarding cooling system impacts on aquatic resources, use of a dry cooling system as an alternative to wet cooling, and impacts associated with dredging the Savannah River federal navigation channel to bring reactor components to the VEGP site, the Licensing Board concludes that, having carried their respective burdens of proof, a ruling on the merits of each contention should be entered in favor of the NRC Staff and SNC, thereby terminating the contested portion of this ESP proceeding before the Board.

NEPA: CEQ REGULATIONS

The Council on Environmental Quality (CEQ) has implemented regulations that provide guidance on agency compliance with the National Environmental

Policy Act (NEPA), *see* 40 C.F.R. Part 1500, that, while not binding on the NRC when the agency has not expressly adopted them, 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

NEPA requires federal agencies to take a “hard look” at the environmental impacts of a proposed action, as well as 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, however, subject to a “rule of reason” in that consideration of environmental impacts need not address every impact that could possibly result, but rather only those that are reasonably foreseeable or have some likelihood of occurring. *See, e.g., Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973).

NEPA: SCOPE OF ENVIRONMENTAL ANALYSIS (REQUIREMENTS)

Agencies are given broad discretion in determining how thoroughly to analyze a particular subject, *see Claiborne*, CLI-98-3, 47 NRC at 103, and may decline to examine issues the agency in good faith considers “remote and speculative” or “inconsequential small,” *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989) (citing *Limerick Ecology Action, Inc.*, 869 F.2d at 739. To that end, when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant with regard to issues such as site selection and facility design. *See Claiborne*, CLI-98-3, 47 NRC at 104; *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001).

NEPA: SCOPE OF ENVIRONMENTAL ANALYSIS (DIRECT, INDIRECT, AND CUMULATIVE IMPACTS)

CEQ regulations state that an environmental impact statement (EIS) must address both direct and indirect 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 those caused by the action at a later time or more distant place, yet are still reasonably foreseeable. *See id.* § 1508.8. But if effects are remote or speculative, the EIS need not discuss

them. See *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.* 435 U.S. 519, 551 (1978).

**NEPA: FINAL ENVIRONMENTAL IMPACT STATEMENT
(LICENSING BOARD DECISION AS AMENDMENT)**

In the context of an NRC adjudicatory proceeding, even if an EIS prepared by the Staff is found to be inadequate in certain respects, the Board's findings, as well as the adjudicatory record, "become, in effect, part of the [final environmental impact statement (FEIS)]." *Hydro Resources*, CLI-01-4, 53 NRC at 53. Thus, the Board's ultimate NEPA judgments can be made on the basis of the entire adjudicatory record in addition to the Staff's FEIS. See *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-05-13, 61 NRC 385, 404 (2005), *aff'd*, CLI-06-22, 64 NRC 37 (2006), *petition for review denied sub nom., Nuclear Information and Resources Service v. NRC*, 509 F.3d 562 (D.C. Cir. 2007).

**NEPA: ENVIRONMENTAL REPORT (REQUIREMENT;
CONTENTS)**

Under the NRC's Part 51 regulations, an applicant for an ESP must submit with its application an ER. See 10 C.F.R. § 51.50(b). The ER must "contain a description of the proposed action, a statement of its purposes, [and] a description of the environment affected," *id.* § 51.45(b), and it must discuss:

- (1) The impact[s] of the proposed action on the environment . . . in proportion to their significance;
- (2) Any adverse environmental effects which cannot be avoided should the proposal be implemented;
- (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 commitments of resources which would be involved in the proposed action should it be implemented.

Id. § 51.45(b)(1)-(5).

NEPA: CONSIDERATION OF ALTERNATIVES

NEPA requires an agency to provide a detailed statement of reasonable alternatives to a proposed action. 42 U.S.C. § 4332(2)(C)(iii); see also *Claiborne*, CLI-98-3, 47 NRC at 104. The alternatives discussion, however, need not include "every possible alternative, but every reasonable alternative." *Long*

Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1999) (second emphasis in original). Reasonable alternatives do not include alternatives that are “impractical[;] . . . that present unique problems; or that cause extraordinary costs.” *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-03-30, 58 NRC 454, 479 (2003) (citing *Airport Neighbors Alliance v. United States*, 90 F.3d 426, 432 (10th Cir. 1996); *Communities, Inc. v. Busey*, 956 F.2d 619, 627 (6th Cir. 1992)). Alternatives that need not be considered include those that are technologically unproven. See *Kelley v. Selin*, 42 F.3d 1501, 1521 (6th Cir. 1995); *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 837 (D.C. Cir. 1972) (approving exclusion from alternatives discussion of alternative energy sources that “will be dependent on [future] environmental safeguards and [technological] developments”); *Busey*, 956 F.2d at 627 (upholding rejection of alternatives that “presented severe engineering requirements” or were “imprudent for reasons including their high cost, safety hazards, [and] operational difficulties”).

NEPA: REQUIREMENT FOR IMPACT STATEMENT (EARLY SITE PERMIT)

The agency’s NEPA regulations require that the NRC Staff prepare an environmental impact statement in connection with the issuance of an ESP. See 10 C.F.R. § 51.20(b)(1).

NEPA: DRAFT ENVIRONMENTAL IMPACT STATEMENT (CONTENTS; TIMING)

The Staff must first prepare a draft environmental impact statement (DEIS), see *id.* § 51.70, which addresses, among other topics, “the matters specified in [section] 51.45.” *Id.* § 51.71(a).

NEPA: DRAFT ENVIRONMENTAL IMPACT STATEMENT; NRC RESPONSIBILITIES

Though the DEIS may rely in part on the ER, agency regulations require the Staff to “independently evaluate and be responsible for the reliability of all information used in the [DEIS].” *Id.* § 51.70(b).

NEPA: ENVIRONMENTAL IMPACT STATEMENT (CIRCULATION FOR COMMENTS)

The Staff’s DEIS is distributed for public comment and, based on the comments

received, a review of information provided by the applicant, and supplemental independent information and analysis, the Staff prepares and issues an FEIS. *See id.* §§ 51.73, 51.91.

NEPA: ENVIRONMENTAL ANALYSIS (CATEGORIZATION OF IMPACTS)

When the Staff makes its conclusions in the DEIS and FEIS regarding the environmental impacts of a proposed action or alternative actions, the Staff uses as guidance a standard scheme to categorize or quantify the impacts. *See, e.g.,* 10 C.F.R. Part 51, App. B, Table B-1 n.3. This standard was created using the approach outlined in section 1508.27 of the CEQ regulations, which requires agencies to consider both the context and intensity of impacts. *See* 40 C.F.R. § 1508.27. The NRC has established three levels of impacts — SMALL, MODERATE, and LARGE — that are defined as follows:

SMALL — Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

MODERATE — Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.

LARGE — Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

NEPA: ENVIRONMENTAL IMPACT STATEMENT (RELIANCE ON IMPACT STATEMENT PREPARED BY ANOTHER FEDERAL AGENCY); NRC RESPONSIBILITIES

An agency may rely on an EIS prepared by another federal agency if such reliance will aid in the presentation of issues, eliminate repetition, or reduce the length of an EIS. *See* 10 C.F.R. Part 51, Appendix A, § 1(b). This principle may extend to conclusions by other agencies set forth in other contexts in which they have analyzed an issue extensively. *See New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87, 98 (1st Cir. 1978) (NRC can accept as conclusive Environmental Protection Agency adjudicatory findings concerning thermal discharge aquatic impacts). Thus, the Staff is able to adopt the underlying scientific data and inferences from the other agency's analysis without independent review, so long as it exercises independent judgment with respect to conclusions about the environmental impacts of the current proposed agency action. *See id.; Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1467-68 (1982).

NEPA: HEARINGS (ON ENVIRONMENTAL IMPACT STATEMENT)

In the context of licensing board adjudication of NEPA-related contentions, intervenors are required to file contentions in the first instance based on the applicant's ER. *See* 10 C.F.R. § 2.309(f)(2). Where, however, the Staff has prepared a DEIS or FEIS by the time the contentions come before a licensing board on the merits, such contentions are appropriately treated as challenges to the EIS. *See Claiborne*, CLI-98-3, 47 NRC at 84.

RULES OF PRACTICE: BURDEN OF PROOF (NEPA ISSUES)

Although, as the proponent of the agency action at issue, an applicant generally has the burden of proof in a licensing proceeding, *see* 10 C.F.R. § 2.325, when NEPA contentions are involved, the burden shifts to the Staff, because the NRC, not an applicant, has the burden of complying with NEPA. *See, e.g., Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983). Nonetheless, because “the Staff, as a practical matter, relies heavily upon the Applicant's ER in preparing the EIS, should the Applicant become a proponent of a particular challenged position set forth in the EIS, the Applicant, as such a proponent, also has the burden on that matter.” *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-96-25, 44 NRC 331, 339 (1996) (citing *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-471, 7 NRC 477, 489 n.8 (1978)), *rev'd on other grounds*, CLI-97-15, 46 NRC 294 (1997).

RULES OF PRACTICE: FINDINGS OF FACT (EFFECT OF FAILURE TO RAISE MATTER IN FINDINGS)

Given the direction in 10 C.F.R. Part 2, Subpart L, to file proposed findings, *see* 10 C.F.R. § 2.1209 (each party “shall” file written post-hearing proposed findings of fact and conclusions of law on the contentions addressed in an oral hearing), a party's failure to raise a matter in its findings submissions (notwithstanding any discussion in its section 2.1207 initial or responsive written statements of position) seemingly waives these items as grounds for its challenge to the FEIS, *see Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 457 (1981).

NEPA: CONSIDERATION OF ALTERNATIVES

Section 51.45(b)(3) of Title 10 of the *Code of Federal Regulations* remains the applicable standard for alternatives analyses in the FEIS in that section 51.90 instructs the Staff to prepare the FEIS “in accordance with the [DEIS-related]

requirements in §§ 51.70(b) and 51.71,” and section 51.71, in turn, instructs the Staff to address in the DEIS matters an applicant is instructed to address in the ER under section 51.45. *See* 10 C.F.R. §§ 51.90, 51.71(a). Thus, the Board must decide whether the FEIS alternatives discussion is “sufficiently complete to aid the Commission in developing and exploring, pursuant to section 102(2)(E) of NEPA, ‘appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.’” *Id.* § 51.45(b)(3).

NEPA: ENVIRONMENTAL ANALYSIS (WEIGHING OF ENVIRONMENTAL COSTS AND OTHER VALUES)

Under NEPA, once “the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989).

NEPA: CEQ REGULATIONS

In implementing NEPA, the NRC uses the definitions provided in CEQ regulations. 10 C.F.R. § 51.14(b).

NEPA: SCOPE OF ENVIRONMENTAL ANALYSIS (DIRECT, INDIRECT, AND CUMULATIVE IMPACTS)

The CEQ regulations state that an agency EIS must consider direct, indirect, and cumulative impacts of an action. *See* 40 C.F.R. § 1508.25. Direct impacts are those caused by the federal action, and occurring at the same time and place as that action, while indirect impacts are caused by the action at a later time or more distant place, yet are still reasonably foreseeable. *See id.* § 1508.8. Cumulative impacts are defined as:

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.

Id. § 1508.7.

NEPA: ENVIRONMENTAL ANALYSIS (INCOMPLETE OR UNAVAILABLE INFORMATION)

For impacts that are reasonably foreseeable, but for which the agency lacks complete information in its analysis, the agency must indicate that such information is lacking. *See* 40 C.F.R. § 1502.22. Significantly, the unavailability of information does not “halt all government action.” *Sierra Club v. Sigler*, 695 F.2d 957, 970 (5th Cir. 1983). “This is particularly true when information may become available at a later time and can still be used to influence the agency’s decision.” *Id.*

NEPA: SCOPE OF ENVIRONMENTAL ANALYSIS

Under section 1508.25 of the CEQ regulations, which defines the term “connected action,” the types of impacts that are to be considered are outlined separately from the types of actions that are to be considered. *See* 40 C.F.R. § 1508.25. This indicates that each type of action and each type of impact has its own independent significance in the sense that a conclusion that something is a “connected action” does not necessarily inform the type of impacts analysis that is performed, whether direct, indirect, or cumulative. *See id.* § 1508.25 (“To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts”).

NEPA: SCOPE OF ENVIRONMENTAL ANALYSIS

Under NEPA, the Staff is required to include an analysis of only those impacts that are reasonably foreseeable or have some likelihood of occurring. *See, e.g., Shoreham*, ALAB-156, 6 AEC at 836.

NEPA: ENVIRONMENTAL ANALYSIS (HARD LOOK); RULE OF REASON

NEPA’s hard look requirement is subject to a rule of reason, and extensive studies of every conceivable impact need not be addressed. *See Shoreham*, ALAB-156, 6 AEC at 836.

TECHNICAL ISSUES DISCUSSED

The following technical issues are discussed: Cooling Water Intake System; Impingement; Entrainment; Hydraulic Zone of Influence; Cooling Water Discharge; Thermal Plume Analysis; Effects of Thermal Discharge; Cooling Systems (Wet vs. Dry); Dredging of River Channel.

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**FIRST PARTIAL INITIAL DECISION
(Contested Proceeding)**

I. INTRODUCTION

1.1 On August 15, 2006, Southern Nuclear Operating Company (SNC) filed an application with the Nuclear Regulatory Commission (NRC) for an early site permit (ESP) under 10 C.F.R. Part 52 for two additional reactors utilizing the Westinghouse Electric Company AP1000 certified design at the existing Vogtle Electric Generating Plant (VEGP) site near Waynesboro, Georgia. This Partial Initial Decision presents the Licensing Board’s findings of fact and conclusions of law relative to three admitted environmental contentions (ECs) proffered by Joint Intervenors¹ — EC 1.2, Environmental Report Fails to Identify and Consider Cooling System Impacts on Aquatic Resources; EC 1.3, Environmental Report Dry Cooling System Alternatives Discussion Fails to Address Aquatic Species Impacts; and EC 6.0, Final Environmental Impact Statement Fails to Provide Adequate Discussion of Impacts Associated with Dredging the Savannah River Federal Navigation Channel — challenging the adequacy of the environmental report (ER) contained in the SNC ESP application and/or the draft or final environmental impact statement (DEIS or FEIS) prepared by the NRC Staff.

1.2 For the reasons set forth below, in the face of Joint Intervenors challenges to the ER, DEIS, and FEIS as reflected in contentions EC 1.2, EC 1.3, and EC 6.0, the Board finds that the Staff and/or SNC have carried their respective burdens of proof to demonstrate the adequacy of the ER, DEIS, and FEIS in accordance

¹ Joint Intervenors include the Center for a Sustainable Coast, Savannah Riverkeeper, Southern Alliance for Clean Energy, Atlanta Women’s Action for New Directions, and Blue Ridge Environmental Defense League.

with 10 C.F.R. Part 51. The Board thus concludes that Joint Intervenors three contentions cannot be sustained and enters a ruling on the merits of each contention in favor of the Staff and SNC.

II. PROCEDURAL BACKGROUND

A. Contentions EC 1.2 and EC 1.3

2.1 Following the August 2006 submission of SNC's Vogtle ESP application and in response to the Commission's October 5, 2006 notice of hearing and opportunity to petition for leave to intervene, 71 Fed. Reg. 60,195 (Oct. 12, 2006), on December 11, 2006, Joint Intervenors (then Joint Petitioners) filed a request for hearing and petition to intervene. *See* Petition for Intervention (Dec. 11, 2006) [hereinafter Intervention Petition]. Thereafter, on December 15, 2006, this Atomic Safety and Licensing Board was established to adjudicate the Vogtle ESP proceeding. *See* 71 Fed. Reg. 77,071 (Dec. 22, 2006).

2.2 In its December 18, 2006 initial prehearing order, among other things, the Board indicated that it would treat the three designated subparts of the first of Joint Intervenors contentions as three separate contentions. The Board also requested that Joint Intervenors designate each of their contentions as being in one or more of the following subject matter categories: (1) Administrative, (2) Site Safety Analysis, (3) Environmental, (4) Site Redress, (5) Emergency Planning, or (6) Miscellaneous. *See* Licensing Board Memorandum and Order (Initial Prehearing Order) (Dec. 18, 2006) at 1-2 (unpublished). Joint Intervenors filed a supplemental pleading designating all of their then-seven contentions as environmental contentions.² *See* J[oi]nt Supplement to Petition for Intervention (Dec. 27, 2006).

2.3 As set forth in these initial pleadings, the second and third portions of Joint Intervenors original contention 1, redesignated as contentions EC 1.2 and EC 1.3 pursuant to the Board's initial prehearing order, read as follows:

EC 1.2: The ER fails to identify and consider direct, indirect, and cumulative impacts of the proposed cooling system intake and discharge structures on aquatic resources.

EC 1.3: The ER fails to satisfy 10 C.F.R. § 51.45(b)(3) because it fails to address impacts to aquatic species in its discussion of alternatives. In particular, the ER's discussion of the no-action alternative and of alternative cooling technologies fails

²As will be discussed in Section II.B, *infra*, Joint Intervenors contention EC 6.0 was not one of Joint Intervenors initially proffered contentions.

to consider environmental and economic benefits of avoiding construction of the proposed cooling system.

LBP-07-3, 65 NRC 237, 258-59 (2007).

2.4 After a 1-day prehearing conference held on February 13, 2007, in Waynesboro, Georgia, during which Joint Intervenors, SNC, and the Staff presented oral argument concerning the admissibility of each of Joint Intervenors initially proffered contentions, including National Environmental Policy Act (NEPA)-associated contentions EC 1.2 and EC 1.3 at issue here, the Board issued a March 12, 2007 memorandum and order ruling on Joint Intervenors standing and the admissibility of their contentions. *See id.* at 237. The Board concluded that each of the Joint Intervenors had established its standing, and admitted narrower versions of contentions EC 1.2 and EC 1.3 that specified the impacts relevant to EC 1.2, i.e., the impacts of the to-be-built intake/discharge structures for proposed Vogtle Units 3 and 4, as they relate to possible impingement/entrainment, chemical discharges, and thermal discharges, and omitted the portion of EC 1.3, as proffered by Joint Intervenors, that challenged the SNC discussion of the no-action alternative. As admitted, the contentions stated:

ENVIRONMENTAL CONTENTION (EC) 1.2 — ER FAILS TO IDENTIFY AND CONSIDER COOLING SYSTEM IMPACTS ON AQUATIC RESOURCES

The ER fails to identify and consider direct, indirect, and cumulative impingement/entrainment and chemical and thermal effluent discharge impacts of the proposed cooling system intake and discharge structures on aquatic resources.

EC 1.3 — ER DRY COOLING SYSTEM ALTERNATIVES DISCUSSION FAILS TO ADDRESS AQUATIC SPECIES IMPACTS

The ER fails to satisfy 10 C.F.R. § 51.45(b)(3) because its analysis of the dry cooling alternative is inadequate to address the appropriateness of a dry cooling system given the presence of extremely sensitive biological resources.

Id. at 280. Additionally, the Board noted that although contention EC 1.1 concerning the adequacy of the ER relative to aquatic baseline information was not admissible, litigation regarding the merits of contention EC 1.2 might involve “the question of the adequacy of the baseline information provided by SNC relative to the portion of the Savannah River that encompasses the project area associated with the intake/discharge structures for both the existing and proposed Vogtle facilities.” *Id.* at 259.

2.5 In accord with an initial schedule established by the Board permitting the submission of summary disposition motions after both the issuance of the Staff draft and final EISs, *see* Licensing Board Memorandum and Order (Prehearing Conference and Initial Scheduling Order) (May 5, 2007), App. A, at 1-2 (unpublished), with the September 10, 2007 issuance of the DEIS, SNC filed seeking

summary disposition of EC 1.2 and EC 1.3 in its favor on the merits, a request that the Staff endorsed. *See* LBP-08-2, 67 NRC 54, 61 (2008); LBP-08-3, 67 NRC 85, 92 (2008). Moreover, in the face of Joint Intervenor's response asserting that summary disposition was inappropriate, SNC and the Staff responded with motions to strike, in part, Joint Intervenor's responses, on the grounds the responses sought improperly to expand the scope of the contentions. Joint Intervenor's opposed these motions. *See* LBP-08-2, 67 NRC at 62; LBP-08-3, 67 NRC at 93.

2.6 On January 15, 2008, the Board issued separate decisions regarding each of the summary disposition motions. In ruling on the motions, the Board found that the contentions at issue, which had not been amended following the DEIS, were contentions of inadequacy rather than omission, so that Joint Intervenor's failure to amend their contentions was not dispositive of the issue. *See* LBP-08-2, 67 NRC at 63-65; LBP-08-3, 67 NRC at 94-96. Additionally, the Board found that the motions to strike were really mislabeled reply pleadings regarding the scope of the contentions that the Applicant and the Staff should have sought leave to file. The Board indicated, however, that it would consider whether the information provided by the parties was within the scope of EC 1.2 and EC 1.3 as part of its consideration of the SNC dispositive motions. *See* LBP-08-2, 67 NRC at 66-67; LBP-08-3, 67 NRC at 96-98.

2.7 With regard to contention EC 1.2, the Board was called upon to assess whether a genuine issue as to any material fact still existed on the subjects of (1) the adequacy of the aquatic baseline discussion in the vicinity of the Vogtle facility; (2) impingement and entrainment impacts; (3) thermal impacts; and (4) chemical impacts. Although the Board had rejected EC 1.1, which asserted that the baseline aquatic population for the area around the Vogtle facility had not been adequately assessed because of a lack of site-specific field studies or data, it also noted that the scope of the baseline for a particular project is a functional concept and could, in the context of the purported deficiencies in the environmental impact analysis associated with contention EC 1.2, be litigated in the proceeding relative to the portion of the Savannah River that encompasses both the existing and proposed Vogtle facilities. *See* LBP-08-2, 67 NRC at 68-69. In connection with the summary disposition request, Applicant SNC and the Staff both asserted that the DEIS provided information on aquatic species that was sufficient to address any concern that the SNC ER discussion of the baseline aquatic environment was inadequate. *See id.* at 69-70. The Board concluded that Joint Intervenor, via the affidavit of Dr. Shawn Young, had established that there was still a dispute as to genuine issues of material fact regarding the adequacy of the baseline information relating to cooling system impacts. *See id.* at 71-73.

2.8 SNC and the Staff also claimed that the DEIS analysis of impingement/entrainment was adequate to address concerns about the potential impacts, including minimum expected river water flow conditions, while Joint Intervenor's declared this was inadequate as evidenced by the Staff's use of a uniform drift

distribution assumption in evaluating fish eggs and larval fish, the checking of screening baskets only several times a year, and the failure to include water withdrawals by current and projected future upstream sites relative to the flow of the river. *See id.* at 73-75. The Board found that material factual disputes still existed relative to larval fish mobility, screen basket cleanings, and the appropriate minimum river level flow figures. *See id.* at 76-77. The Board also found, however, that it would not consider further the issue raised by Joint Intervenors regarding the impacts of cumulative withdrawals other than those relating to the existing and proposed Vogtle facilities. *See id.* at 78.

2.9 Regarding thermal impacts, SNC and the Staff claimed that the DEIS analysis was adequate to the degree it made conservative assumptions about river flow conditions and provided a cumulative impact analysis that combined the existing and proposed thermal plumes. *See id.* at 79-80. Joint Intervenors disagreed, citing concerns about minimal river flow numbers, higher facility maximum withdrawals, and use of the uniform drift distribution assumption. *See id.* at 80. The Board found that genuine factual disputes regarding water flow rates and the use of the uniform drift distribution assumption existed such that summary disposition was inappropriate. *See id.* With regard to chemical impacts, however, Joint Intervenors having conceded that the DEIS discussion of the impact of chemicals on aquatic life was adequate, the Board granted the SNC motion and dismissed this aspect of the contention as moot. *See id.* at 81-82.

2.10 Concerning contention EC 1.3, in denying SNC's summary disposition motion, the Board found that a number of disputed material factual issues remained, including

the type of turbines that can be used; the adequacy of current dry cooling system design for use in facilities like the proposed Vogtle plants; the impact of the climate in the vicinity of the VEGP on the efficacy of wet and dry system cooling; and the potential financial, environmental, and/or performance impacts upon facility design, construction, and/or operation of using a dry rather than a wet cooling system.

LBP-08-3, 67 NRC at 101. Additionally, the Board rejected as outside the scope of contention EC 1.3 Joint Intervenors claims regarding a wet-dry hybrid cooling system alternative, which the Board found they first raised in response to the summary disposition motion. *See id.* at 102-03.

2.11 Subsequently, in August 2008, the Staff issued its FEIS. Although the Board's July 2008 revised general schedule provided for submission of another summary disposition motion regarding any admitted contentions following issuance of the FEIS, *see* Licensing Board Memorandum and Order (Revised General Schedule) (July 14, 2008), App. A, at 3 n.2 (unpublished) [hereinafter July 14, 2008 Scheduling Order], none of the parties chose to file such a motion.

B. Contention EC 6.0

2.12 Pursuant to the Board's July 2008 revised general schedule that also permitted new contentions to be filed after issuance of the Staff's FEIS, *see* July 14, 2008 Scheduling Order, App. A, at 2, on September 23, 2008, Joint Intervenors filed a motion to admit a new contention,³ *see* Joint Intervenors' Motion to Admit New Contention (Sept. 23, 2008). The new contention, EC 6.0, read as follows:

The discussion of potential impacts associated with dredging and use of the Savannah River Federal navigation channel is inadequate and fails to comply with NEPA because it relies on the Army Corps of Engineers (the "Corps") to analyze these impacts in the future. As a result, the Staff's conclusion that impacts would be moderate runs counter to the evidence in the hearing record. Additionally, the FEIS wholly fails to address impacts of navigation on the Corps' upstream reservoir operations, an important aspect of the problem.

See Licensing Board Memorandum and Order (Ruling on Motion to Admit New Contention) (Oct. 24, 2008) at 3 (unpublished). Additionally, the motion contained eight items of foundational support for the contention:

1. The FEIS contains substantially different data and conclusions from the SNC ER or the staff's DEIS.
2. Using the federal navigation channel to barge components to the VEGP site is necessary for construction of Units 3 and 4.
3. Environmental impacts stemming from the use of the federal navigation channel are direct impacts of the proposed construction of Units 3 and 4 that must be addressed in the FEIS.
4. The staff's conclusion, as set forth in the "Cumulative Impacts" chapter of the FEIS, that the large-scale dredging from Savannah Harbor to the VEGP site could have moderate impacts is inadequately supported.
5. Dredging the federal navigation channel has potentially significant impacts on the environment.
6. The staff abdicated its duty independently to assess potential impacts of dredging in the FEIS.

³ The deadline provided in the July 2008 revised general schedule was actually September 22, but due to technical difficulties later excused by the Board, Joint Intervenors did not successfully file their motion until September 23. *See* Licensing Board Memorandum and Order (Ruling on Motion to Admit New Contention) (Oct. 24, 2008) at 4, 8-9 (unpublished).

7. Navigation requires release of significant amounts of water from upstream reservoirs, which is not addressed in the FEIS.
8. The NRC staff failed to consult with the United States Army Corps of Engineers (USACE), as required by NEPA.

See id. at 3-4.

2.13 In an October 24, 2008 memorandum and order, the Board admitted contention EC 6.0 as supported by foundational support items 4, 5, and 7. *See id.* at 16-17. The contention as admitted states:

EC 6.0 — FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) FAILS TO PROVIDE ADEQUATE DISCUSSION OF IMPACTS ASSOCIATED WITH DREDGING THE SAVANNAH RIVER FEDERAL NAVIGATION CHANNEL

Because Army Corps of Engineers (Corps) dredging of the Savannah River Federal navigation channel has potentially significant impacts on the environment, the NRC Staff's conclusion, as set forth in the "Cumulative Impacts" chapter of the FEIS, that such impacts would be moderate is inadequately supported. Additionally, the FEIS fails to address adequately the impacts of the Corps' upstream reservoir operations as they support navigation, an important aspect of the problem.

Id. at 20.

C. Evidentiary Hearing on Contentions EC 1.2, EC 1.3, and EC 6.0

2.14 Thereafter, in preparation for the 10 C.F.R. Part 2, Subpart L informal evidentiary hearing on these three environmental contentions, Joint Intervenors, SNC, and the Staff filed initial position statements and prefiled direct testimony on January 9, 2009. In response to Joint Intervenors prefiled direct testimony, SNC and the Staff filed motions in limine seeking to strike parts of the prefiled testimony of certain witnesses and associated exhibits. *See* Licensing Board Memorandum and Order (Ruling on In Limine Motions) (Jan. 26, 2009) (unpublished). The Board granted the in limine motions in part and struck portions of Joint Intervenors prefiled direct testimony and exhibits as being outside the scope of the contentions as admitted. *See id.* at 2-7.

2.15 On February 6, 2009, the parties filed their response statements and prefiled rebuttal testimony regarding the three contentions. On February 11, 2009, SNC and the Staff filed in limine motions seeking to exclude portions of Joint Intervenors prefiled rebuttal testimony and associated exhibits. *See* Licensing Board Memorandum and Order (Ruling on In Limine Motions) (Feb. 23, 2009) (unpublished). The Board ruled on this second round of in limine motions in a February 23, 2009 memorandum and order, striking certain portions of Joint Intervenors rebuttal testimony and exhibits, but declining to strike portions of

the EC 1.3 testimony concerning North Anna Unit 3 (a proposed wet-dry hybrid nuclear unit cooling system) to the extent it was used to support Joint Intervenor's claim that dry cooling is feasible, as well as declining to strike portions of the EC 6.0 testimony concerning dredge spoil disposal. *See id.* at 3-6. In accordance with the Board's rulings on the motions in limine, Board administrative directives for the hearing, and on the parties' own initiative, the parties submitted revised testimony and both revised and new exhibits. *See, e.g.*, NRC Staff Resubmission of Prefiled Direct Testimony and Corrected Exhibit NRC000009 (Feb. 2, 2009); Joint Intervenor's Re-revised Initial Position Statement, Pre-filed Direct Testimony, Exhibits and Exhibit List (Feb. 13, 2009); Notice of Revised Testimony and Exhibit (Mar. 6, 2009); [SNC] Submission of Revised Testimony and Exhibits (Mar. 11, 2009). The final versions of the parties' prefiled testimony were bound into the transcript as if read. *See, e.g.*, Tr. at 577, 610-11.

2.16 Finally, in accordance with a March 6, 2009 memorandum and order in which the Board instructed the parties to file any remaining corrections to prefiled testimony and exhibits no later than March 11, 2009, *see* Licensing Board Memorandum and Order (Additional Matters Related to Contested and Mandatory Hearings) (Mar. 6, 2009) at 1-2 (unpublished), on March 11, 2009, SNC filed revised versions of the testimony of two of its witnesses as well as a number of exhibits. *See* [SNC]'s Submission of Revised Testimony and Exhibits (Mar. 11, 2009). However, additional revisions to testimony and exhibits were made shortly before and during the evidentiary hearing. *See* Tr. at 633.

2.17 Pursuant to the general schedule set forth in a November 13, 2008 memorandum and order, *see* Licensing Board Memorandum and Order (Revised General Schedule) (Nov. 13, 2008) (unpublished), on March 16-19, 2009, the Board held evidentiary hearings in Augusta, Georgia, on contentions EC 1.2, EC 1.3, and EC 6.0. *See* Tr. at 506-1660. Subsequent to the hearing, in a March 30, 2009 memorandum and order, the Board granted an unopposed motion by SNC to admit a new exhibit, SNC000098, that had been identified for the record at the evidentiary hearing but had not been entered into evidence. *See* Licensing Board Memorandum and Order (Post-Hearing Administrative Items) (Mar. 30, 2009) at 1 (unpublished). Additionally, in an April 8, 2009 memorandum and order adopting certain corrections to the March 2009 hearing transcripts, the Board closed the evidentiary record for the contested portion of this proceeding as of that date. *See* Licensing Board Memorandum and Order (Transcript Corrections; Closing the Record of Contested Proceeding) (Apr. 8, 2009) at 1-2 (unpublished).

2.18 Pursuant to 10 C.F.R. § 2.1209 and the general schedule set forth in Appendix A to the Board's November 13 order, on April 24, 2009, Joint Intervenor, SNC, and the Staff filed with the Board their proposed findings of fact and conclusions of law regarding those environmental contentions. *See* Joint Intervenor's Proposed Findings of Fact and Conclusions of Law (Apr. 24, 2009) [hereinafter Joint Intervenor Proposed Findings]; [SNC] Proposed Findings of

Fact and Conclusions of Law Regarding Environmental Contentions (Apr. 24, 2009) [hereinafter SNC Proposed Findings]; NRC Staff's Proposed Findings of Fact and Conclusions of Law Concerning Contested Environmental Matters (Apr. 24, 2009) [hereinafter Staff Proposed Findings]. Each party similarly filed reply findings of fact and conclusions of law on May 8, 2009. *See* Joint Intervenors' Reply to NRC Staff's and [SNC] Proposed Findings of Fact and Conclusions of Law Concerning Contested Matters (May 8, 2009) [hereinafter Joint Intervenors Reply Findings]; [SNC] Reply Findings of Fact and Conclusions of Law Regarding Environmental Contentions (May 8, 2009) [hereinafter SNC Reply Findings]; NRC Staff's Reply Findings of Fact and Conclusions of Law Concerning Contested Environmental Matters (May 8, 2009) [hereinafter Staff Reply Findings].

III. APPLICABLE LEGAL STANDARDS

3.1 The contentions at issue here — EC 1.2, EC 1.3, and EC 6.0 — arise under the National Environmental Policy Act of 1969 and the NRC regulations implementing the agency's responsibilities pursuant to the Act. *See* 42 U.S.C. § 4321 *et seq.*; 10 C.F.R. Part 51. Together, this statute and the corresponding agency regulations govern the applicant's and the Staff's roles in considering the environmental effects of a proposed ESP licensing action under 10 C.F.R. Part 52, Subpart A. Additionally, the Council on Environmental Quality (CEQ) has implemented regulations that provide guidance on agency compliance with NEPA, *see* 40 C.F.R. Part 1500, that, while not binding on the NRC when the agency has not expressly adopted them, are entitled to considerable deference. *See Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 725, 743 (3d Cir. 1989).

A. NEPA Requirements

3.2 NEPA requires federal agencies to take a "hard look" at the environmental impacts of a proposed action, as well as 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, however, subject to a "rule of reason" in that consideration of environmental impacts need not address every impact that could possibly result, but rather only those that are reasonably foreseeable or have some likelihood of occurring. *See, e.g., Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973). Agencies are given broad discretion in determining how thoroughly to analyze a particular subject, *see Claiborne*, CLI-98-3, 47 NRC at 103, and may decline to examine issues the agency in good faith considers "remote and speculative" or "inconsequentially small," *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). To that end, when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant with regard to issues such as site selection and facility design. See *Claiborne*, CLI-98-3, 47 NRC at 104; *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001).

3.3 Additionally, CEQ regulations state that an EIS must address both direct and indirect 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 those caused by the action at a later time or more distant place, yet are still reasonably foreseeable. See *id.* § 1508.8. But if effects are remote or speculative, the EIS need not discuss them. See *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.* 435 U.S. 519, 551 (1978).

3.4 Finally, in the context of an NRC adjudicatory proceeding, even if an EIS prepared by the Staff is found to be inadequate in certain respects, the Board's findings, as well as the adjudicatory record, "become, in effect, part of the FEIS." *Hydro Resources*, CLI-01-4, 53 NRC at 53. Thus, the Board's ultimate NEPA judgments can be made on the basis of the entire adjudicatory record in addition to the Staff's FEIS. See *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-05-13, 61 NRC 385, 404 (2005), *aff'd*, CLI-06-22, 64 NRC 37 (2006), *petition for review denied sub nom., Nuclear Information and Resource Service v. NRC*, 509 F.3d 562 (D.C. Cir. 2007).

B. 10 C.F.R. Part 51 Requirements

3.5 Under the NRC's Part 51 regulations, an applicant for an ESP must submit with its application an ER. See 10 C.F.R. § 51.50(b). The ER must "contain a description of the proposed action, a statement of its purposes, [and] a description of the environment affected," *id.* § 51.45(b), and it must discuss:

- (1) The impact[s] of the proposed action on the environment . . . in proportion to their significance;
- (2) Any adverse environmental effects which cannot be avoided should the proposal be implemented;
- (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 commitments of resources which would be involved in the proposed action should it be implemented.

Id. § 51.45(b)(1)-(5).

3.6 Relative to item 3, above, NEPA requires an agency to provide a detailed statement of reasonable alternatives to a proposed action. 42 U.S.C. § 4332(2)(C)(iii); *see also Claiborne*, CLI-98-3, 47 NRC at 104. The alternatives discussion, however, need not include “every possible alternative, but every reasonable alternative.” *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1999) (second emphasis in original). Reasonable alternatives do not include alternatives that are “impractical[;] . . . that present unique problems; or that cause extraordinary costs.” *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-03-30, 58 NRC 454, 479 (2003) (citing *Airport Neighbors Alliance v. United States*, 90 F.3d 426, 432 (10th Cir. 1996); *Communities, Inc. v. Busey*, 956 F.2d 619, 627 (6th Cir. 1992)). Alternatives that need not be considered include those that are technologically unproven, *see Kelley v. Selin*, 42 F.3d 1501, 1521 (6th Cir.) (upholding NRC decision not to consider additional alternative spent fuel storage technologies that were “neither sufficiently demonstrated nor practicable for use” for the application in question), *cert. denied*, 515 U.S. 1159 (1995); *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 837 (D.C. Cir. 1972) (approving exclusion from alternatives discussion of alternative energy sources that “will be dependent on [future] environmental safeguards and [technological] developments”); *Busey*, 956 F.2d at 627 (upholding rejection of alternatives that “presented severe engineering requirements” or were “imprudent for reasons including their high cost, safety hazards, [and] operational difficulties”).

3.7 The agency’s NEPA regulations also require that the NRC Staff prepare an environmental impact statement in connection with the issuance of an ESP. *See* 10 C.F.R. § 51.20(b)(1). The Staff must first prepare a DEIS, *see id.* § 51.70, which addresses, among other topics, “the matters specified in [section] 51.45.” *Id.* § 51.71(a). Though the DEIS may rely in part on the ER, the regulations require the Staff to “independently evaluate and be responsible for the reliability of all information used in the [DEIS].” *Id.* § 51.70(b). The DEIS is then distributed for public comment and, based on the comments received, a review of information provided by the applicant, and supplemental independent information and analysis, the Staff prepares and issues an FEIS. *See id.* §§ 51.73, 51.91.

3.8 When the Staff makes its conclusions in the DEIS and FEIS regarding the environmental impacts of a proposed action or alternative actions, the Staff uses as guidance a standard scheme to categorize or quantify the impacts. *See, e.g.*, 10 C.F.R. Part 51, App. B, Table B-1 n.3. This standard was created using the approach outlined in section 1508.27 of the CEQ regulations, which requires agencies to consider both the context and intensity of impacts. *See* 40

C.F.R. § 1508.27. The NRC has established three levels of impacts — SMALL, MODERATE, and LARGE — that are defined as follows:

SMALL — Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

MODERATE — Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.

LARGE — Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

See Exh. NRC00001A, at 1-4 ([NRO, NRC], NUREG-1872, “[FEIS for an [ESP] at the Vogtle Electric Generating Plant Site” (Aug. 2008) (sections 1.0-4.0)) [hereinafter FEIS 1A]; *see also* Exh. NRC000010, at 4.7-1 (Office of Nuclear Regulatory Research, NRC, NUREG-1555, “Environmental Standard Review Plan” (2007)) (stating with regard to cumulative impacts that “[t]he information should include a characterization of cumulative impacts using NRC’s SMALL, MODERATE, LARGE terminology (see the Introduction)”) [hereinafter 2007 ESRP].

3.9 In addition, although the Staff is generally required independently to evaluate and substantiate all information contained in the DEIS, an agency may rely on an EIS prepared by another federal agency if such reliance will aid in the presentation of issues, eliminate repetition, or reduce the length of an EIS. *See* 10 C.F.R. Part 51, App. A, § 1(b). This principle may extend to conclusions by other agencies set forth in other contexts in which they have analyzed an issue extensively. *See New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87, 98 (1st Cir. 1978) (NRC can accept as conclusive Environmental Protection Agency (EPA) adjudicatory findings concerning thermal discharge aquatic impacts). Thus, the Staff is able to adopt the underlying scientific data and inferences from the other agency’s analysis without independent review, so long as it exercises independent judgment with respect to conclusions about the environmental impacts of the current proposed agency action. *See id.*; *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1467-68 (1982).

3.10 Finally, in the context of licensing board adjudication of NEPA-related contentions, intervenors are required to file contentions in the first instance based on the applicant’s ER. *See* 10 C.F.R. § 2.309(f)(2). Where, however, as is the case here, the Staff has prepared a DEIS or FEIS by the time the contentions come before a licensing board on the merits, such contentions are appropriately treated as challenges to the EIS. *See Claiborne*, CLI-98-3, 47 NRC at 84 (approving Board decision to treat intervenor contentions addressing ER as challenges to FEIS).

C. Burden of Proof in NEPA Context

3.11 Although, as the proponent of the agency action at issue, an applicant generally has the burden of proof in a licensing proceeding, *see* 10 C.F.R. § 2.325, when NEPA contentions are involved, the burden shifts to the Staff, because the NRC, not an applicant, has the burden of complying with NEPA. *See, e.g., Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983). Nonetheless, because “the Staff, as a practical matter, relies heavily upon the Applicant’s ER in preparing the EIS, should the Applicant become a proponent of a particular challenged position set forth in the EIS, the Applicant, as such a proponent, also has the burden on that matter.” *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-96-25, 44 NRC 331, 339 (1996) (citing *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-471, 7 NRC 477, 489 n.8 (1978)), *rev’d on other grounds*, CLI-97-15, 46 NRC 294 (1997).

IV. FACTUAL FINDINGS AND LEGAL CONCLUSIONS

A. Contention EC 1.2

1. Witnesses and Evidence Presented

4.1 SNC, the Staff, and Joint Intervenors each presented witnesses in connection with EC 1.2 during the March 2009 evidentiary hearing in support of their respective positions on the adequacy of the FEIS discussion and analysis of the direct, indirect, and cumulative impingement/entrainment and thermal effluent discharge impacts of the proposed Vogtle Units 3 and 4 cooling system intake and discharge structures on aquatic resources. Each of these witnesses presented written direct and rebuttal testimony, with supporting exhibits, and gave oral testimony at the evidentiary hearing. *See* Tr. at 582-947; *see also* [SNC] Testimony of Anthony Dodd and Matt Montz Concerning EC 1.2 (fol. Tr. at 587) [hereinafter Dodd/Montz EC 1.2 Direct Testimony]; [SNC] Rebuttal Testimony of Tony Dodd and Matt Montz Concerning EC 1.2 (fol. Tr. at 589) [hereinafter Dodd/Montz EC 1.2 Rebuttal Testimony]; [SNC] Testimony of Dr. Charles Coutant Concerning EC 1.2 (fol. Tr. at 604) [hereinafter Coutant EC 1.2 Direct Testimony]; [SNC] Rebuttal Testimony of Dr. Charles C. Coutant on [EC] 1.2 (fol. Tr. at 605) [hereinafter Coutant EC 1.2 Rebuttal Testimony]; [SNC] Testimony of Thomas Moorer Concerning EC 1.2 (fol. Tr. at 610) [hereinafter Moorer EC 1.2 Direct Testimony]; [SNC] Rebuttal Testimony of Tom Moorer Concerning EC 1.2 (fol. Tr. at 612) [hereinafter Moorer EC 1.2 Rebuttal Testimony]; NRC Staff Testimony of Dr. Michael T. Masnik, Anne R. Kuntzleman, Rebekah H. Krieg, Dr. Christopher B. Cook, and Lance W. Vail Concerning Environmental Contention EC 1.2 (fol. Tr. at 743) [hereinafter Staff EC 1.2 Direct Testimony]; NRC Staff

Rebuttal Testimony of Dr. Michael T. Masnik, Anne R. Kuntzleman, Rebekah H. Krieg, Dr. Christopher B. Cook, and Lance W. Vail Concerning Environmental Contention EC 1.2 (fol. Tr. at 744) [hereinafter Staff EC 1.2 Rebuttal Testimony]; Re-revised Prefiled Direct Testimony of Shawn P. Young in Support of EC 1.2 (fol. Tr. at 814) [hereinafter Young EC 1.2 Direct Testimony]; Revised Prefiled Rebuttal Testimony of Dr. Shawn Young Concerning Contention EC 1.2 (fol. Tr. at 815) [hereinafter Young EC 1.2 Rebuttal Testimony]; Revised Prefiled Direct Testimony of Barry W. Sulkin in Support of EC 1.2 (fol. Tr. at 816) [hereinafter Sulkin EC 1.2 Direct Testimony]; Revised Prefiled Rebuttal Testimony of Barry W. Sulkin Concerning Contention EC 1.2 (fol. Tr. at 817) [hereinafter Sulkin EC 1.2 Rebuttal Testimony].

a. *SNC*

4.2 For its part, SNC presented four witnesses regarding EC 1.2: (1) Anthony R. Dodd, Georgia Power Company Environmental Specialist; (2) Matthew T. Montz, SNC Environmental Specialist, (3) Dr. Charles C. Coutant, a private consultant to SNC on aquatic ecology and fisheries biology matters; and (4) Thomas C. Moorer, SNC Project Manager-Environmental. *See* Tr. at 583-738.

4.3 Mr. Dodd received a Bachelor of Science degree in Marine Biology from Troy University and has over 25 years of experience in the environmental field, specializing in aquatic biology. Prior to joining Georgia Power Company, he worked for 7 years as a Senior Biologist for Geosyntec Consultants, Inc., during which he conducted and supervised fisheries-related investigations in freshwater and estuarine environments throughout various parts of the southeastern United States. Mr. Dodd is a licensed state and federal permit holder for the collection of protected freshwater fish species, and has experience in fish collection methodologies, including hydroacoustics sampling, species identification, and quality control and quality assurance measures. *See* Dodd/Montz EC 1.2 Direct Testimony at 2; Exh. SNC000002 (Anthony R. Dodd Curriculum Vitae (CV)).⁴

⁴As entered into the record and reflected in the agency's ADAMS-associated electronic hearing docket, the official exhibit number for each evidentiary item reflects a three-alpha character identifier (i.e., SNC, NRC, JTI), followed by six alpha and/or numeric characters to reflect its number and whether it was revised subsequent to its original submission as a prefiled exhibit (e.g., admitted exhibit SNCR00005 is a revised version of prefiled exhibit SNC000005); followed by a two-character alpha or numeric identifier that will be used in this case to distinguish between an exhibit utilized in the contested portion of this proceeding (i.e., 00) as opposed to the mandatory/uncontested portion of the proceed (i.e. MA); followed by the designation BD01, which indicates that this Licensing Board (i.e., BD01) was involved in its identification and/or admission. Accordingly, the official designation for this exhibit is SNC000002-00-BD01. For the sake of simplicity, however, we will refer to all exhibits admitted in the contested portion of this proceeding by their initial nine character designation only.

4.4 Mr. Montz earned a Bachelor of Science degree in Biology and a Master of Science degree in Environmental Management from Samford University. He has over 12 years of experience in the field of environmental biology. Prior to joining SNC, Mr. Montz worked for 7 years as an environmental specialist for Southern Company Services, Earth Science and Environmental Engineering, managing aquatic environmental monitoring programs and working in the areas of water chemistry, benthic macro invertebrate studies, and effluent toxicity testing. He also has conducted assessments of water quality conditions of southern estuaries and rivers to determine the impacts associated with the withdrawal and discharge of cooling water at seven electric generating facilities in Mississippi and Florida, and has participated in field collection of air, water, and soil samples, as well as the evaluation of those samples for possible environmental impacts. *See* Dodd/Montz EC 1.2 Direct Testimony at 3; Exh. SNC000003 (Matthew T. Montz CV).

4.5 Dr. Coutant obtained undergraduate and Master's degrees in biology, as well as a Ph.D. in biology (with a focus on ecology), from Lehigh University. He is a retired Distinguished Research Staff Member of the Oak Ridge National Laboratory, where his activities included conducting research on thermal effects and entrainment and impingement effects on aquatic life, preparing NEPA EISs for nuclear power plants, and serving on task forces to develop biological criteria for environmentally benign siting, design, and operation of power station cooling-water facilities. Dr. Coutant currently serves as a private consultant in the areas of aquatic ecology and fisheries biology. *See* Coutant EC 1.2 Direct Testimony at 1-4; Exh. SNC000012 (Dr. Charles C. Coutant CV).

4.6 Mr. Moorer has a Bachelor of Science degree in Environmental Science from Auburn University and a Bachelor of Science degree in Civil/Environmental Engineering from the University of Alabama. He has over 30 years' experience in utility environmental management, including over 18 years in the nuclear area and 15 years' experience regarding NEPA matters. As Project Manager-Environmental for SNC, Mr. Moorer was responsible for developing the ER and all supporting activities for SNC's ESP application for Vogtle Units 3 and 4. *See* Moorer EC 1.2 Direct Testimony at 1-2; Exh. SNC000014 (Thomas C. Moorer CV).

b. NRC Staff

4.7 The NRC Staff presented five witnesses in support of its position regarding EC 1.2: (1) Dr. Michael T. Masnik, Senior Aquatic Biologist in the NRC's Division of Site and Environmental Reviews/NRC Office of New Reactors (DSER/NRO/NRC); (2) Anne R. Kuntzleman, DSER/NRO/NRC Aquatic Biologist; (3) Rebekah H. Krieg, Senior Research Scientist, Ecology Group, Environmental Sustainability Division/Energy and Environment Directorate of the

Pacific Northwest National Laboratory ((ESD/EED/PNNL); (4) Dr. Christopher B. Cook, Senior Hydrologist, DSER/NRO/NRC; and (5) Lance W. Vail, Senior Research Engineer in the Hydrology Group, ESD/EED/PNNL. *See* Tr. at 738-810.

4.8 Dr. Masnik has a Bachelor of Science degree in Conservation from Cornell University and a Master of Science degree and Ph.D. in Zoology from Virginia Polytechnic Institute and State University. He has over 30 years of experience with NRC and its predecessor, the Atomic Energy Commission, in the environmental aspects of nuclear power plant operation and decommissioning, including participating in NEPA reviews for the construction and operation of new reactors. His specialty early in his agency tenure was in evaluating the impacts of cooling water system designs and intake structures on fish and shellfish. As an NRO Senior Aquatic Biologist, Dr. Masnik was the lead technical reviewer for the NRC on aquatic resource issues associated with the Vogtle ESP application. *See* Staff EC 1.2 Direct Testimony at 1 & unnumbered attach. 3 (Michael T. Masnik Statement of Professional Qualifications (SPQ)).

4.9 Ms. Kuntzleman received a Bachelor of Science degree in Biology from Pennsylvania State University, a Master of Science degree in Education from Temple University, and a Master of Science in Biology from the University of Michigan. Her professional experience includes more than 10 years as an aquatic ecologist for environmental consulting firms, and more than 18 years as a senior biologist with the Department of the Navy, Engineering Field Activity Northeast (EFANE). She was an NRC technical reviewer for the aquatic and terrestrial resources issues associated with the SNC ESP application for Vogtle Units 3 and 4 and provided technical oversight to the PNNL reviewers during the preparation of FEIS §§ 2.7.2 (Aquatic Ecology), 4.4 (Ecological Impacts from Construction), 5.4 (Ecological Impacts from Operation), and 7.5 (Cumulative Impacts–Aquatic Ecosystem). *See* Staff EC 1.2 Direct Testimony at 1, 3 & unnumbered attach. 1 (Anne R. Kuntzleman SPQ).

4.10 Ms. Krieg has a Bachelor of Science degree in Biology from Washington State University and a Master of Science in Fisheries and Oceanographic Sciences from the University of Washington. At PNNL, she has been involved in technical reviews of the environmental aspects of new nuclear plant applications and license renewals. Ms. Krieg, who was a technical reviewer for PNNL's contract with NRC on aquatic resource issues associated with the Vogtle ESP application, prepared the descriptive information contained in FEIS § 2.7.2 and performed the review of the impact to aquatic organisms due to interactions with the proposed station intake and discharge structures as presented in FEIS §§ 4.4.2 (Aquatic Impacts), 5.4, and 7.5. *See* Staff EC 1.2 Direct Testimony at 2-3 & unnumbered attach. 4 (Rebekah H. Krieg Resume).

4.11 Dr. Cook has a Bachelor of Science in Civil Engineering from Colorado State University and a Master of Science and Ph.D. in Civil and Environmental Engineering from the University of California at Davis. His experience over the

past 2 years at NRC and for 7 years at PNNL includes conducting hydrologic safety and environmental reviews for new plant applications. As a Senior Research Engineer at PNNL, Dr. Cook was the lead technical reviewer for PNNL's contract with the NRC on hydrological alterations, water use, and water quality issues associated with the DEIS for the Vogtle ESP application. Likewise, while at NRC he has been a technical reviewer on these same issues relative to the Vogtle ESP. *See* Staff EC 1.2 Direct Testimony at 2-3 & unnumbered attach. 5 (Dr. Christopher B. Cook SPQ).

4.12 Mr. Vail obtained a Bachelor of Science in Environmental Resources Engineering from Humboldt State University and a Master of Science in Civil Engineering from Montana State University. He has done research in a number of areas related to water resources and is currently involved in water-related safety and environmental reviews for nuclear power plant ESPs. As a Senior Research Engineer at PNNL, Mr. Vail was a technical reviewer for PNNL's contract with NRC on hydrological alterations, water use, and water quality issues associated with the Vogtle ESP application. *See* Staff EC 1.2 Direct Testimony at 2, 4 & unnumbered attach. 2 (Lance W. Vail SPQ).

c. Joint Intervenors

4.13 Finally, in connection with EC 1.2, Joint Intervenors provided the testimony of two witnesses: (1) Dr. Shawn P. Young, Research Faculty of Fisheries Biology at the University of Idaho, Moscow, Idaho, and a member of the Adjunct Faculty at Clemson University; and (2) Barry W. Sulkin, a private consultant to Joint Intervenors on water-related environmental matters. *See* Tr. at 810-947.

4.14 Dr. Young has a Bachelor of Science in Environmental Studies from Northland College and a Master of Science in Aquaculture, Fisheries, and Wildlife Biology and a Ph.D. in Fisheries and Wildlife Biology from Clemson University. He has 11 years of research experience in the effects of human activities on fisheries and aquatic ecosystems, including 6 years of experience studying fisheries in the Savannah River Basin. *See* Young EC 1.2 Direct Testimony at 1-2; Exh. JTI000042 (Shawn P. Young CV).

4.15 Mr. Sulkin has a Bachelor of Arts in Environmental Science from the University of Virginia and a Master of Science in Environmental Engineering from Vanderbilt University. He has more than 30 years' experience in water quality monitoring and permit compliance, first serving with the Tennessee Department of Environment and Conservation and then, for the last 18 years, as a private consultant on water quality issues, regulatory assistance, National Pollutant Discharge Elimination System (NPDES) permits, stream surveys, and environmental investigations. *See* Sulkin EC 1.2 Direct Testimony at 1-3; Exh. JTI000043 (Barry W. Sulkin CV).

4.16 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 relative to the subject of the adequacy of the FEIS discussion and analysis of the direct, indirect, and cumulative impingement/entrainment/thermal discharge impacts of the proposed Vogtle Units 3 and 4 cooling system intake and discharge structures on aquatic resources.

2. Wet Cooling System for Vogtle Units 3 and 4

4.17 The focus of this contention (as well as EC 1.3) is on the aquatic impacts associated with the cooling water system for proposed Vogtle Units 3 and 4. In that regard, to dissipate the waste heat that is a byproduct of normal nuclear power plant operation, each of the proposed Vogtle units would need to dispel up to 7.55×10^9 Btu/hr (British thermal units per hour) of waste heat. To do so, these units (as is the case with existing Vogtle Units 1 and 2) would employ a closed-cycle wet cooling water system to transfer heat from the main condenser, the turbine building closed-cycle cooling water heat exchangers, and the condenser vacuum pump seal water heat exchangers by utilizing one natural draft cooling tower per unit. In contrast to the mechanical draft cooling towers used for the service water system, in which fans are used to facilitate heat transfer, in a natural draft cooling tower, excess heat in the cooling water is transferred to the atmosphere by evaporative and conductive cooling. The cooled water is collected at the bottom of the cooling tower and returned to the condenser. After passing through the condenser, the heated water is pumped back to the cooling tower to begin another cycle. *See* Exh. NRC00001A, at 3-5 to -7 ([NRO, NRC], NUREG-1872, “[FEIS for an [ESP] at the Vogtle Electric Generating Plant Site” (Aug. 2008) (Sections 1.0-4.0)) [hereinafter FEIS 1A].⁵

4.18 Notwithstanding the “closed-cycle” nature of this arrangement, some water is lost from the system through evaporation, and a much lesser amount is lost by a process called drift. Drift is the result of small droplets of water being carried from the tower by the convecting air. Moreover, to limit the increased concentration of dissolved solids in the cooling water system caused by the heat dissipation evaporation process, a portion of the water in the otherwise closed system would be continuously discharged from the system as “blowdown.” This blowdown, after being retained for a brief period in a sump to allow dechlorination, would be discharged back into the Savannah River through an outlet common to both new units. As a consequence, “makeup” water would be pumped from the

⁵ In accord with 10 C.F.R. § 2.337(g)(2)(iv), the Staff introduced its FEIS into evidence in its entirety as exhibits NRC00001A through NRC00001E. *See* Prefiled Direct Testimony of Mark D. Notich Sponsoring NUREG-1872 into Hearing Record (fol. Tr. at 577).

Savannah River into the cooling water system for Vogtle Units 3 and 4 by means of a common intake structure to replace the water lost via evaporation, blowdown, and drift.⁶ *See id.* at 3-6 to -7.

4.19 It is the extent of the impact upon Savannah River aquatic resources, via entrainment/impingement when makeup water is withdrawn from the river to replace this lost water, along with the potential impact of the thermal discharge associated with returning system blowdown to the river, that are at the heart of this contention (as well as EC 1.3).

3. FEIS Discussion Relative to Contention EC 1.2

4.20 The discussion in the Vogtle FEIS that is relevant to the aquatic impact matters that are the focus of EC 1.2 is found in section 2.7.2.1 (Aquatic Ecology/Communities of the VEGP Site), which discusses the communities on and near the VEGP site and includes the species composition of molluscs and fish in the Savannah River. Noting that the VEGP site is at river mile (RM) 150.9, the FEIS also includes a short description of the habitat types in the middle reach of the Savannah River (defined as occurring from the Fall Line at RM 220 downstream to the mouth of Brier Creek (RM 97)). The FEIS discusses the results of studies related to diatoms, aquatic insects, molluscs, and fish, including threatened and endangered species. *See* FEIS 1A, at 2-18, 2-74 to -93.

4.21 In FEIS § 5.4.2.2 (Aquatic Impacts/Savannah River), the Staff evaluated the impacts to aquatic resources from impingement and entrainment from the proposed Vogtle Units 3 and 4 operations and determined that (1) impingement caused by operation of the proposed Units 3 and 4 would have a minor impact on fish populations inhabiting the Savannah River; and (2) the impacts to the fish populations of the Savannah River from entrainment due to the operation of the proposed Units 3 and 4 would be minor. *See* Exh. NRC00001B, at 5-29 to -33 ([NRO, NRC], NUREG-1872, “[FEIS for an [ESP] at the Vogtle Electric Generating Plant Site” (Aug. 2008) (Sections 5.0-11.0)) [hereinafter FEIS 1B]; Staff EC 1.2 Direct Testimony at 37. Also, in FEIS § 7.5.2 (Aquatic Ecosystems/Operations) the Staff evaluated the cumulative impacts to aquatic

⁶ According to the FEIS, assuming two operating reactor units utilizing revision 15 to the AP1000 certified design, for normal operation the makeup water rate flow would be 2348.47 liters per second (L/s) (37,224 gallons per minute (gpm)), the consumptive water use rate (evaporation and drift) would be 1761.73 L/s (27,924 gpm), and the blowdown rate would be 586.74 L/s (9300 gpm). *See* FEIS 1A, at 3-6 to -7. The FEIS also noted that the bounding or maximum makeup water flow rate would be 3645.60 L/s (57,784 gpm), the maximum consumptive water use rate would be 1823.56 L/s (28,904 gpm), and the maximum blowdown rate would be 1822.04 L/s (28,880 gpm), and that these figures would change somewhat under pending revision 16 to the AP1000 certified design, for which the Staff provided an impacts analysis in FEIS §§ 5.3.3.1 and 7.3.1.1. *See id.* at 3-7; *see also supra* section IV.A.4.b.

resources from impingement and entrainment from existing Vogtle Units 1 and 2 in combination with Units 3 and 4. The Staff concluded that the cumulative impacts from entrainment would be minor, and that the cumulative losses from impingement are unlikely to impact Savannah River fish populations adversely. *See* FEIS 1B, at 7-21 to -25.

4.22 Finally, the Staff evaluated the thermal impacts to aquatic resources from the operation of proposed Vogtle Units 3 and 4, as well as the cumulative impacts of Units 1 and 2 in combination with Units 3 and 4, in FEIS §§ 5.4.2.3 (Aquatic Thermal Impacts), 5.4.2.9 (Summary of Aquatic Impacts), and 7.5.2 (Operations). The Staff concluded that the thermal impacts would be minor and the cumulative thermal impacts would not negatively impact aquatic organisms. *See id.* at 5-33 to -34, 5-38 to -39, 7-23.

4. Overarching Legal/Technical Issues Relating to Contention EC 1.2

4.23 Although the adequacy of the FEIS analyses of the impingement/entrainment/thermal discharge impacts arising from proposed Vogtle Units 3 and 4 are the central controversy before the Board in connection with EC 1.2, as framed by Joint Intervenors and litigated by the parties, additional issues came to the forefront that became part and parcel of Joint Intervenors challenge under this issue statement. As we discuss in more detail below, these included (1) how the aquatic environment in the Vogtle environs should be characterized in terms of the fish and other creatures that inhabit the Savannah River; (2) what river flows should be used in assessing the impingement/entrainment/thermal discharge impacts at issue; and (3) the degree to which there is what Joint Intervenors have labeled a “lower baseline” for certain of the aquatic creatures in the VEGP environs such that they should be accorded “special creature status.”

a. Characterization of the Aquatic Environment

4.24 As was noted above, *see supra* p. 625, in ruling on Joint Intervenors contention EC 1.1, the Board rejected their assertion that they had framed a litigable contention by challenging the SNC ER on the basis of the applicant’s failure to include

a site-specific description of the Plant Vogtle aquatic environs that is based on recent field studies or a quantitative analysis of the circumstances regarding aquatic species assemblage, migration by anadromous (i.e., moving from the sea to rivers to breed) and diadromous (i.e., migrating between salt- and freshwater) species, or habitat utilization within the proposed intake and discharge sites and/or the project area,

finding that they had failed to demonstrate with any references to any relevant

agency rule, regulatory guide, or standard licensing review plan, “that suggest site-specific studies are generally required.” LBP-07-3, 65 NRC at 255-57. At the same time, in admitting contention EC 1.2, the Board indicated that “its merits may involve the question of the adequacy of the baseline information provided by SNC relative to the portion of the Savannah River that encompasses the project area associated with the intake/discharge structures for both the existing and proposed Vogtle facilities.” *Id.* at 259. In the context of this contention, relative to the subsequent Staff issuance of its FEIS, Joint Intervenors have continued to press their concern about the adequacy of the environmental analysis information base utilized to make the impingement/entrainment/thermal discharge impact determinations found in that Staff environmental impacts report, both generally and more specifically with respect to what Joint Intervenors now label “Special Status Species.” See Joint Intervenor Proposed Findings at 10-11; Joint Intervenors Reply Findings at 3-4.

i. NRC REGULATIONS AND REGULATORY GUIDANCE

4.25 Section 51.70(b) of Title 10 of the *Code of Federal Regulations* indicates that in analyzing alternatives and impacts, an agency NEPA statement “will identify any methodologies used and sources relied upon, and will be supported by evidence that the necessary environmental analyses have been made.” Relative to the question of the information needed to fulfill this requirement, the guidance provided in Chapter 2, section 2.2 of Regulatory Guide 4.2 identifies the information needed by the Staff in the preparation of its assessment of the potential environmental effects of the proposed nuclear facility, stating that “the applicant should describe the flora and fauna in the vicinity of the site, their habitats, and their distribution. This initial inventory will reveal certain organisms which, because of their importance to the community, should be given special attention.” Exh. NRC000007 at 2-3 (NRC, NUREG-0099, “Regulatory Guide 4.2, Preparation of Environmental Reports for Nuclear Power Stations” (rev. 2 1976)).

4.26 Guidance in this regard also is provided in section 2.4.2 of NUREG-1555, the Staff’s ESRP, that “directs the staff’s description of the aquatic environment and biota at and in the vicinity of the site and other areas likely to be impacted by the construction, maintenance, or operation of the proposed project.” Exh. NRCR00009, at 2.4.2-1 (Office of Nuclear Reactor Regulation, NRC, NUREG-1555, “Environmental Standard Review Plan” (1999)) [hereinafter 1999 ESRP]. According to the ESRP, the scope of the Staff’s review

should include the spatial and temporal distribution, abundance, and other structural and functional attributes of biotic assemblages on which the proposed action could have an impact. The review should also identify any “important” . . . or irreplaceable

aquatic natural resources and the location of sanctuaries and preserves that might be impacted by the proposed actions.

Id. The ESRP also explains that “[t]he depth and extent of the input to the EIS should be governed by the kinds of aquatic ecological resources that could be affected by plant construction or operation and by the nature and magnitude of the expected impacts to these resources.” *Id.* at 2.4.2-6. Furthermore, the ESRP states that:

[t]he input should be brief and should contain the following information:

- [T]he principal aquatic ecological features of the site and vicinity . . . with emphasis on the communities of the ecosystem that will be potentially affected by project construction, operation, or maintenance. This information should be based on an analysis of at least one full year of data to reflect seasonal variations in aquatic populations. Thus, the extent of discussion of various biotic components should be in proportion to the estimated severity of impacts and should be adequate to support the assessment of ESRP Chapters 4.0 [(Environmental Impacts of Construction)] and 5.0 [(Environmental Impacts of Station Operation)].
- [D]escriptions of environmental or man-induced stresses to aquatic biota at the existing site and vicinity.

* * * *

- [A] discussion of “important” aquatic species that may be affected by plant or transmission corridor construction or operation. Estimates of their abundance should be provided where appropriate. Special habitat and forage needs should be emphasized, if the proposed project would potentially disrupt these.
- [A] summary of consultations with appropriate Federal, State, regional, local, and affected Native American tribal agencies, including the U.S. Fish and Wildlife Service (through the regional director), and the director of the State fish and wildlife agency.

Id. at 2.4.2-6 to -7; *see also* 2007 ESRP at 5.3.1.2-1 (in assessing potential plant intake system impacts on aquatic ecosystems, per ESRP § 2.4.2, obtain description of aquatic ecology in vicinity of the site, especially resources potentially affected by cooling-water intake system). Additionally, the Staff defines “important” species as species that are (1) “rare” species that are federally listed or proposed/candidates to be listed as threatened or endangered; (2) state listed as threatened, endangered, or of concern; (3) commercially or recreationally valuable or essential to the maintenance and survival of species that are rare and commercially or recreationally valuable; (4) critical to the structure and function

of the aquatic ecosystem;⁷ or (5) biological indicators of the aquatic environment. *See* 1999 ESRP at 2.4.2-7 (Table 2.4.2-1).

ii. DOCUMENTS STAFF USED TO CHARACTERIZE ENVIRONMENT

4.27 Previously, in ruling on the admissibility of EC 1.1, we indicated that in the context of the agency's existing regulatory framework "the appropriate scope of the baseline for a project is a functional concept: an applicant must provide enough information and in sufficient detail to allow for an evaluation of important impacts." LBP-07-3, 65 NRC at 257. This approach is wholly consistent with the Staff guidance set forth above, which indicates that the FEIS discussion should be proportional to the estimated severity of impacts and be adequate to support the impact assessments needed. As a consequence, we cannot endorse Joint Intervenors continuing assertion that an extensive assessment of the aquatic community in the vicinity of the facility, including additional detailed field studies, designed specifically to evaluate the impacts of the new intake and discharge structures is the only way to provide the necessary NEPA evaluation data, *see* Joint Intervenors Reply Findings at 2-3, at least in the absence of a showing that the information upon which the Staff did rely was deficient in some material way.

4.28 Relative to the information that was used by the Staff, the Staff testified that it relied upon a range of sources of information to characterize the Savannah River in the vicinity of the site, which it asserts was both adequate and appropriately comprehensive to enable the Staff's evaluation of environmental impacts. These included five major information sources or source groupings, as well as specific reports that addressed individual species.

4.29 The Staff relied on the 2005 publication "Fishes of the Middle Savannah River Basin," authored by Barton C. Marcy, Jr., and four others, as the basis for a general description of the environment, and specifically to identify the fish species that are present in the stretch of the Savannah River adjacent to the site as given in FEIS § 2.7.2.1. Although not prepared as an impact assessment study, this volume does contain habitat characterizations, family descriptions, species accounts, habitat and species photographs, and a taxonomic identification key, based on data obtained from an area from RM 97 to RM 221, for which the VEGP site, located at RM 150 to RM 152, is roughly in the midpoint. Also, the authors of this book based their records of distribution in the Middle Savannah River Basin (MSRB) and species life history information on more than 120 years

⁷ Although Table 2.4.2-1 refers to the "terrestrial" ecosystem and environment (apparently having been copied from section 2.4.1, Terrestrial Ecology), in the context of the aquatic ecology section in which it is located (i.e., section 2.4.2), it clearly seems intended to encompass the aquatic ecosystem and environment.

of data collection from the MSRB and 50 years from the Department of Energy's Savannah River Site (SRS), which is just across the river from the VEGP site. *See* Staff EC 1.2 Direct Testimony at 14-15; *see also* NRC Exh. NRC000006 (excerpts from Barton C. Marcy, Jr., *et al.*, *Fishes of the Middle Savannah River Basin* (2005)) [hereinafter *Marcy Savannah River Fishes*].

4.30 Also utilized by the Staff as a source of information for the FEIS to describe the aquatic species composition and habitat in the Savannah River was a series of reports that were developed by the Academy of Natural Sciences in Philadelphia (ANSP). The three reports referred to in the FEIS, which were published in 2001, 2003, and 2005, were based on ANSP efforts going back to 1951 to conduct biological and water quality studies in the Savannah River between RM 122 and RM 160 for the purpose of assessing potential effects of SRS contaminants and warm-water discharges on the aquatic communities in the river. Components of the ANSP study included basic water chemistry, diatoms, other attached algae, aquatic macrophytes (mosses and rooted aquatic plants), protozoa, aquatic insects, non-insect macroinvertebrates, and fish. Until 1997, the ANSP conducted two types of surveys, quadrennial comprehensive surveys, which included all the components mentioned above, and annual cursory surveys, which included a reduced component set, typically attached algae, insects, and fish, and were carried out annually with four sampling periods per year. During years with comprehensive surveys, the comprehensive surveys substituted for two of the usual cursory sampling periods. Moreover, as part of the ANSP studies, sampling stations were added at RM 151.2 and 149.8 in 1985 to assess and distinguish the potential impacts of the VEGP site. Cursory-type surveys occurred at the VEGP site until 1997. From 1997 to 2000, the ANSP conducted an annual survey in the early fall at four sampling stations. For this period, aspects of the VEGP site surveys were combined into a single, comprehensive study that included fish species. Sampling at one of the original Vogtle stations continued through 2001, although those particular samples were archived and not analyzed. *See* Staff EC 1.2 Direct Testimony at 15-16; Exh. NRC000003, at ii, 199 (The Academy of Natural Sciences, Report No. 03-08F, 2001 Savannah River Biological Surveys for Westinghouse Savannah River Company (Aug. 2003)) [hereinafter 2001 ANSP Study].

4.31 According to the Staff, it used the ANSP studies, which demonstrate that the Savannah River has been studied extensively upstream and downstream of the VEGP site and at different seasons throughout the year, to provide an understanding of the river ecology and the current species of fish and molluscs present in the vicinity of the VEGP site. And in that regard, the Staff noted in FEIS § 2.7.2.1 that the ANSP 2001 study data indicated that (1) species richness for fish was significantly higher at the sampling location farthest downstream (Station 6, which would be in the direction of the VEGP) than at the farthest sampling location upstream of the SRS (Station 1); and (2) neither species diversity, nor

densities of common species of fish, differed significantly between stations. *See id.* at 16-17; *see also* FEIS 1A, at 2-81; 2001 ANSP Study at i, ii, v, x, xi, 2-3, 12-16, 199-200. In this regard, the ANSP characterized its sampling program as being “one of the most comprehensive ecological datasets available for any of the world’s rivers.” 2001 ANSP Study at v.

4.32 A third source of information for Staff EIS preparation was two overlapping studies conducted by the SRS describing the ichthyoplankton distribution, which were discussed in FEIS § 2.7.2.1. *See* Vogtle FEIS 1A, at 2-81; *see also* Exh. NRC000011, at V-241 to -335 & V-454 to -536 (5 W.L. Specht, Comprehensive Cooling Water Study (Oct. 1987)); Exh. NRC000012, at xii to xvii & 3-1 to 5-9 (Michael H. Paller *et al.*, Distribution and Abundance of Ichthyoplankton in the Mid-Reaches of the Savannah River and Selected Tributaries (Mar. 1986)) [hereinafter Paller Ichthyoplankton Distribution]. Although 20 or more years old, these studies, which involved a stretch of the river along the southwestern edge of the SRS directly across the river from the VEGP site, were included in the FEIS because they occurred at the same location and showed similar species distributions. *See* Staff EC 1.2 Direct Testimony at 17.

4.33 A fourth source of information used by the Staff became available only after the DEIS was published, when the Staff received notice from the United States Fish and Wildlife Service (USFWS) that a study had been performed for USFWS based on data collected in a late 2006 survey of freshwater mussels in the Savannah River between RM 22.8 and RM 203. *See* Exh. NRC000005, at 2 (The Catena Group, Freshwater Mussel Surveys, The Savannah River from Augusta to Savannah: South Carolina & Georgia (2007)) [hereinafter Catena Group Mussel Surveys]. As the most recent study of the freshwater mussels in the river that has been conducted, the Staff used this study to update information in FEIS § 2.7.2.1, including the number of important species identified during the survey and their locations. *See* Staff EC 1.2 Direct Testimony at 18; Vogtle FEIS 1A, at 2-76, 2-87, & 2-88.

4.34 A fifth set of information was used to provide general background or used in the development of descriptions of specific species and their life histories. This set included the 1985 final environmental statement (FES) for the operating license for Vogtle Units 1 and 2 and a variety of comprehensive studies on specific topics, which were used for developing Vogtle Units 3 and 4 FEIS descriptions of aquatic species and their life history. *See* Vogtle FEIS 1A, at 2-88, 2-89; *see also* Exh. NRC000013 (David H. Bennett and Robert W. McFarlane, The Fishes of the Savannah River Plant: National Environmental Research Park (Aug. 1983)); Exh. NRC000014 (Office of Nuclear Reactor Regulation, [NRC], Final Environmental Statement Related to the Operation of [VEGP], Units 1 and 2 (Mar. 1985));⁸

⁸ *See infra* note and accompanying text regarding the admission of this exhibit.

Exh. NRC000015 (3 A. S. Hendricks, The Conservation and Restoration of the Robust Redhorse, *Moxostoma robustum* (May 2002)); Exh. NRC000016 (Mike Nichols, Conservation Strategy for Robust Redhorse (*Moxostoma robustum*) (2003)) [hereinafter Robust Redhorse Conservation Strategy]; Exh. NRC000017 (Timothy B. Grabowski & J. Jeffery Isely, Seasonal and Diel Movements and Habitat Use of Robust Redhorses in the Lower Savannah River, Georgia and South Carolina (2006)). According to the Staff, these sources and studies were among the most recent, reliable, and authoritative studies of which the Staff was aware. *See* Staff EC 1.2 Direct Testimony at 18.

iii. ADEQUACY OF STAFF INFORMATION USED IN CHARACTERIZING THE
AQUATIC ENVIRONMENT GENERALLY

4.35 In accord with its own guidance on fulfilling its EIS-preparation responsibilities, the Staff must have information sufficient to allow it to describe accurately the principal aquatic ecological features of the VEGP site and its environs, as well as the ecosystem communities that potentially will be affected by construction, operation, or maintenance of the proposed Vogtle facilities, with detail that is both proportional to the estimated severity of the impacts and adequate to support the required impacts assessment. It also must have sufficient information to permit it to identify and discuss “important” aquatic species that may be affected by the project. Joint Intervenors challenges to the adequacy of the information used by the Staff in establishing the baseline for such an assessment of impingement/entrainment/thermal impacts in this instance mirror these two categories. One concern relates to the sufficiency of the information available to the Staff to assess generally the Savannah River aquatic environment as it is relevant to the Staff’s impacts determination. The other involves the sufficiency of that information in connection with what the Staff refers to as “important” species, and what Joint Intervenors now call “special status species.” We look first to their claim regarding the general sufficiency of the information.

4.36 Of particular concern to Joint Intervenors are the Marcy *et al.* and ANSP studies referenced above. Acknowledging that these studies “are not irrelevant,” Joint Intervenors Reply Findings at 2, Joint Intervenors nonetheless find them wanting. With respect to the Marcy *et al.* study, Joint Intervenors focus on the Staff’s recognition that this study was “‘not developed to provide an impact assessment.’” Joint Intervenors Reply Findings at 3 n.4 (quoting Staff EC 1.2 Direct Testimony at 15); *see* Young EC 1.2 Rebuttal Testimony at 7. The ANSP studies, on the other hand, are questioned because they employed sampling techniques over several days in the fall of each year, thereby purportedly “‘miss[ing] a dominant portion of the fish-population moving through the vicinity and then also their early life history’” to the degree that larval and juvenile fish

are most likely to be detected in the spring and early summer following spawning season. Joint Intervenor Reply Findings at 3 (quoting Tr. at 877 (Young)).

4.37 We, however, are unable to agree with the claim that these studies, and the Staff's reliance upon them, are lacking as a basis for an adequate NEPA assessment. Relative to the ANSP studies, as the Staff pointed out, they were used to furnish an overall understanding of the Savannah River ecology and the current fish and mollusc species present in the general vicinity of the VEGP site,⁹ as well as an overall indication of the past SRS and VEGP site impacts on the river, not as the source for life history, migration timing, or population numbers, which was garnered from other sources as the information was relevant to the "important species" the Staff found merited extended EIS discussion.¹⁰ See Staff EC 1.2 Rebuttal Testimony at 11. Nor do we find disqualifying the fact that Marcy *et al.* (or other studies utilized by the Staff) were not prepared to support a NEPA assessment. Looking to the applicable provisions of the Staff FEIS cited above, *see supra* section II.A.4.a.ii, we see nothing on its face, and Joint Intervenor have provided us with nothing specific, that indicates the Staff's reliance on this existing written information, in lieu of a site-specific study, has resulted in a factually inaccurate discussion of the Savannah River aquatic environment. To be sure, we have statements by Dr. Young on behalf of Joint Intervenor questioning, as a general matter, whether these materials have "the level of specificity needed for an impacts analysis." Young EC 1.2 Rebuttal Testimony at 7. We also have statements from Dr. Coutant on behalf of SNC indicating that the information utilized by the Staff contains "an abundance of information" that provides "an adequate basis in my opinion to estimate what is out there or what should be out there with which to do an analysis." Tr. at 677-78.

4.38 We are not unsympathetic that, as an aquatic ecologist, Dr. Young would want the utmost site-specific information available to aid him when he

⁹ Citing the "highly variable" habitat conditions on the river, Dr. Young also expresses concern about the ANSP studies relative to the river locations that were the subject of the sampling effort, i.e., at a distance some 10 miles from the VEGP site, and the fact that the most recent ANSP study is from 2001. Young EC 1.2 Rebuttal Testimony at 5-6; *see also* Young EC 1.2 Direct Testimony at 5. This, however, is simply a variation on Dr. Young's overarching concern that only a contemporary, long-term, site-specific study can be adequate for environmental impact assessment purposes.

¹⁰ So too, Dr. Young in the context of his concerns about the ANSP study, suggests that the FEIS discussion includes "only the most abundant and common species," without sufficient attention to "the uncommon and rare," Young EC 1.2 Rebuttal Testimony at 5-6, albeit without acknowledging that the Staff's "important" species approach to EIS analysis clearly is intended to encompass both. *See* FEIS 1A, at 2-81. Moreover, Dr. Young provides no insight into what those neglected species might be. Acknowledging that the FEIS provides information regarding the six "most imperiled and/or most important" Savannah River fisheries, he also suggests that the FEIS lacks a discussion of other "at risk" fish species, albeit without identifying what those might be. Young EC 1.2 Direct Testimony at 4.

is assessing the nature of a particular aquatic environment. *See* Tr. at 882. Nonetheless, the materials relied upon by the Staff in this proceeding in defining the aquatic environment associated with the Savannah River in the vicinity of the VEGP site have been shown by a preponderance of the evidence not to be materially deficient to the extent that it would adversely impact the Staff's impingement/entrainment/thermal impacts analysis. As a result, whatever might be the case in some other instance relative to the age and sufficiency/relevance of the baseline reference materials involved, we find no basis here for entering a ruling that NEPA required the preparation of a contemporaneous, site-specific aquatic impacts field survey as support for this ESP application.¹¹

iv. ADEQUACY OF STAFF DETERMINATIONS REGARDING LISTING/DISCUSSING
"IMPORTANT/PROTECTED" SPECIES

4.39 In addition to their concern about the adequacy of the information available to provide an overall assessment of the Savannah River aquatic environment, Joint Intervenors have articulated a similar concern relative to the "important" species that the Staff must, consistent with its NEPA guidance, assess in the context of making an impacts determination regarding impingement/entrainment/thermal discharge. In particular, Joint Intervenors question the adequacy of the information baseline relative to the robust redhorse and various mussel species.¹²

¹¹This is not to say that the simple citation of existing studies and other information materials will, in all instances, establish the sufficiency of an ER or EIS in the face of a sufficiently supported challenge beyond one that merely asserts any discussion about the relevant aquatic environment has been omitted. Nor should this determination be considered as a basis for discounting the usefulness of contemporaneous aquatic studies such as were done by SNC in this instance, which can provide material aid to the Staff in completing its NEPA responsibilities (and useful background for the public in reviewing the Staff's efforts), particularly in the face of an information database that is less recent or incomplete.

We also think it is worth noting in this regard that, as this litigation illustrates, one of the results of the approach, however reasonable, under which "[t]he depth and extent of the input to the EIS should be governed by the kinds of aquatic ecological resources that could be affected by plant construction or operation and by the nature and magnitude of the expected impacts to these resources," 1999 ESPR at 2.4.2-6, is that saying less about SMALL impacts, in the face of a concerted challenge by a dedicated intervenor with qualified experts, may result in having to provide extensive supporting detail to defend both the input to, and the sufficiency of, the analysis.

¹²Albeit not raised in Joint Intervenors findings of fact, during the hearing Dr. Young suggested that there were several other deficiencies indicating that the FEIS informational baseline is inadequate. In particular, he cited the failure to refer to certain reference materials regarding the striped bass and the American shad, *see* Tr. at 944-46 (referencing Exh. JTI000015 (U.S. Fish and Wildlife Service, U.S. Department of the Interior (FWS/DOI) & Coastal Ecology Group, USACE, Species Profiles: Life Histories and Environmental Requirements of Coastal Fishes and Invertebrates (Mid-Atlantic) Striped

(Continued)

4.40 In connection with the robust redhorse, a Georgia state-listed endangered species, *see* FEIS 1A, at 2-88, a principal concern of Joint Intervenor is the lack of a larval or juvenile life history, with the exception of its reported swimming speed of 0.25 to 0.4 feet per second (fps). *See* Joint Intervenor Proposed Findings at 16. This may well reflect, as Dr. Masnik noted for the Staff, that “the early life history of this species is not well-known,” Tr. at 778, but in any event hardly seems critical given the Staff’s presumption that because they are incapable of overcoming an intake velocity of 1.0 fps, 100% of such early forms will be entrained if they transit the intake structure. *See* Staff EC 1.2 Rebuttal Testimony at 13.

4.41 Also evidencing a failure to provide sufficient baseline information, according to Joint Intervenor, was the FEIS discussion of mussels. While noting that no mussel survey was conducted in connection with the SNC application, Joint Intervenor do recognize that the FEIS included a discussion of Georgia state-listed mussels as identified in a 2007 survey by The Catena Group on behalf of the federal Fish and Wildlife Service. They also assert, however, that the failure of the FEIS to identify the host fish species to which larval mussels attach is a deficiency that both establishes the need for further baseline information and is fatal to any finding that the impingement/entrainment/thermal impacts will be SMALL given there is no specific finding of the impacts that would be visited on those host fish and, concomitantly, upon the mussel larvae that they host. *See* Joint Intervenor Findings of Fact at 18-20. At first blush, this point seems to have some merit, particularly given that some mussel host fish apparently have yet to be identified. *See* Catena Group Mussel Surveys, at 27 (several Savannah River Basin mussel species fish hosts still unknown; laboratory and field research needed as understanding life cycles critical component of species conservation). Ultimately, however, we find this argument unpersuasive in the context of this FEIS. The Staff FEIS assessment was that the impingement/entrainment/thermal

Bass (Oct. 1983)); Exh. JTI00011 (FWS/DOI, Habitat Suitability Index Models and Instream Flow Suitability Curves: American Shad (June 1985)), which were designated in the FEIS as recreationally and commercially important species, respectively. In addition to the procedural problem, given the direction in 10 C.F.R. Part 2, Subpart L to file proposed findings, *see* 10 C.F.R. § 2.1209 (each party “shall” file written post-hearing proposed findings of fact and conclusions of law on the contentions addressed in an oral hearing), that this failure to raise the matter in their findings submissions (notwithstanding any discussion in their section 2.1207 initial or responsive written statements of position) seemingly waives these items as grounds for their EC 1.2 challenge to the FEIS, *see Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 457 (1981), we find these matters without substance as well. In both instances, given the discussions in the FEIS regarding these species, *see* FEIS 1A, at 2-82 to -85, we do not perceive the failure to include these documents (which are of the same age as some of the FEIS reference materials criticized by Joint Intervenor as not being current) among the reference materials cited by the Staff as having any substantive impact on the FEIS impacts analysis.

impacts on all affected fish species would be minor or SMALL. *See* FEIS 1B, at 5-29 to -34; Staff EC 1.2 Direct Testimony at 37, 46, 58; Staff EC 1.2 Rebuttal Testimony at 37 (using the terms minor and small). Assuming that assessment is true, which we discuss in more detail below, it is not apparent, at least in the absence of some specific showing that Joint Intervenors have not made in this instance, how impingement/entrainment/thermal impacts on host fish that will be small can have a significantly different impact upon that fish's ability to perform its usual biological functions, whether that is hosting a mussel larva or being a food chain predator or nutrition source. Consequently, we cannot find this purported host fish information deficiency to be one that compels either additional information gathering efforts or a revision to the Staff's FEIS impact assessment.

b. Use of River Flows in Assessing Impingement/Entrainment/Thermal Impacts

4.42 Although not the subject of any of Joint Intervenors proposed legal/factual findings, *see supra* note 12, in the prefiled testimony of both Dr. Young and Mr. Sulkin, *see* Young EC 1.2 Direct Testimony at 9-10; Sulkin EC 1.2 Direct Testimony at 4-15; Sulkin Rebuttal Testimony at 1-7, they do take issue with what they describe as the failure of the Staff in the FEIS to consider an appropriate range of Savannah River flows in evaluating the aquatic resource impacts from the Vogtle Units 3 and 4 intake and discharge structures. At issue are possible low flow conditions, which at very reduced levels persisting over a long period of time potentially could have adverse impacts with respect to impingement/entrainment losses and thermal pollution. *See* Staff EC 1.2 Direct Testimony at 66-67, 87-88. In questioning this Staff assessment, Joint Intervenors challenged the two Staff assessment benchmarks associated with river flow: river flow level/discharge, as measured in cubic feet per second (cfs), and reactor unit water use withdrawal as a percentage of the river flow/discharge.

4.43 Acknowledging that (1) the intake of cooling system makeup water during the operation of the proposed Units 3 and 4 will result in a reduction of the amount of water downstream from the VEGP site; and (2) the reduction would be proportionally greater in low-flow circumstances, such as the drought of record that the Savannah River Basin has been experiencing since 2006, in the FEIS the Staff assessed the impact of low-flow conditions. As the basis for this analysis, the Staff chose to rely upon the level of releases from the J. Strom Thurmond Dam reservoir, located some 70 miles north of the VEGP site, as they are tied to the drought levels — from 1, the least severe, to 4, the most severe — at which that reservoir's pool is maintained consistent with the existing draft USACE Drought Contingency Plan under which, as the drought level increases, pool preservation requires a reduction in the dam discharge flow resulting in a lower flow downstream. *See* Staff EC 1.2 Direct Testimony at 61-62; FEIS

1B, at 5-7 to -8. Using these reservoir discharge flow rates, as well as figures computed to reflect the river water withdrawals that would occur during normal and maximum operation of proposed Vogtle Units 3 and 4 and normal operation of existing units 1 and 2, the Staff then calculated the percentage of river flow that would be withdrawn (i.e., the amount taken out of the river as makeup water) and consumptively used (i.e., the amount withdrawn offset by what is returned to the river as blowdown) by the proposed new units both alone and in combination with existing Units 1 and 2. *See* FEIS 1B, at 5-7 to -9, 7-6 to -7. This percentage, in turn, was assessed in comparison to the figure of 5% of annual average flow used by EPA as a threshold under 40 C.F.R. § 125.84(b)(3)(i) for riverine system withdrawals. *See* Staff EC 1.2 Direct Testimony at 77.

4.44 In connection with the issue of river flow discharge, notwithstanding Dr. Young's protestations that flows lower than 3800 cfs were not considered, *see* Young EC 1.2 Direct Testimony at 11, the FEIS does consider flows of 3000 and 2000 cfs, as well as 8830, 4200, 4000, and 3800 cfs, the last of which is considered the Drought Level 3 condition under the existing draft USACE Drought Contingency Plan. *See* FEIS 1B, at 5-9 to -10, 7-4 to -7. Although at the lowest flow rate of 2000 cfs or less, withdrawals would exceed the EPA 5% withdrawal figure, in the FEIS the Staff concluded that there will be a SMALL impact from normal operation of Units 3 and 4 alone, or in combination with Units 1 and 2, at all the aforementioned flow levels, finding with respect to the very low-flow scenarios of 3000 and 2000 cfs that they are likely to be so rare and temporary as to not destabilize the water supply.¹³ *See* FEIS at 5-10, 7-7.

4.45 In their prefiled and trial testimony, Joint Intervenors witnesses posit a series of concerns regarding this river flow information. Initially, Mr. Sulkin challenges the relevance of what he refers to as the Staff's "surrogate method" of referencing the EPA 5% standard as part of its FEIS assessment, asserting the figure is a performance standard relative to what is technologically achievable that says nothing about the potential impacts of withdrawals less than 5%. Additionally, he questions the Staff's figures used to represent withdrawals and consumptive use in relation to both existing Units 1 and 2 as well as proposed Units 3 and 4, asserting that they failed to account for higher withdrawal figures used in conjunction with the recent Staff FEIS regarding the operating license renewal for Vogtle Units 1 and 2, as well as higher withdrawal and consumption figures for Units 3 and 4 based on the pending revision 16 to the design certification document (DCD) for the AP1000 certified design. Once properly calculated, he contends, they showed that the EPA 5% figure had been exceeded in several instances. Also in this regard, noting that recent weather has brought Drought Level 3 to pass,

¹³ Furthermore, the 3000- and 2000-cfs low-flow scenarios represent "snapshots" of low-flow periods, while the EPA 5% withdrawal figure is referenced to the average flow over the course of a year. *See infra* notes 14-15 and accompanying text.

both Dr. Young and Mr. Sulkin assert there should be an impacts assessment of Drought Level 4, which Mr. Sulkin indicates, based on figures used in the Units 1 and 2 license renewal FEIS, would be at a flow level of 957 cfs. *See* Sulkin EC 1.2 Direct Testimony at 4-15; Sulkin EC 1.2 Rebuttal Testimony at 1-7; Young EC 1.2 Direct Testimony at 10-11; Tr. at 918-40; Exh. JTI000021 (Savannah River Discharge Tables) [hereinafter Joint Intervenors Discharge Tables].

4.46 The Staff has posed various defenses to these claims. In connection with the use of the EPA 5% standard, noting that the figure was used in the context of a percentage of annual mean flow, the Staff asserts that the record of the rulemaking associated with that figure indicates that, rather than providing a demarcation threshold for NEPA impact level changes, this percentage reflects an EPA judgment about one of a combination of requirements, including intake design and construction technologies intended to reduce impingement and entrainment, that will provide adequate protection to aquatic biota in a waterbody. In the case of the Vogtle Units 3 and 4 assessment, the Staff declares, this 5% figure was not the controlling factor in its NEPA impacts assessment, but rather one among a number of factors, including design, location, and planned operation of the intake structure; the site location and uniqueness of the site vicinity habitat; site hydrology; applicable important species life history data; and past and recent field studies in the vicinity of the VEGP site. Moreover, in response to Mr. Sulkin's concerns about the accuracy of the figures provided in the FEIS, the Staff provided revised figures they assert account for both the license renewal FEIS information and the DCD revision 16 data cited by Mr. Sulkin. *See* Staff EC 1.2 Rebuttal Testimony at 2-7, 31-36; Exh. NRC000052, at unnumbered page 1 (Tables Showing Cumulative Withdrawals of All Four Vogtle Units as Percentage of River Flow) [hereinafter Staff Revised Withdrawal Tables]. They also argue that Joint Intervenors concerns about withdrawal percentages exceeding the 5% threshold for the two existing and two proposed units at the VEGP site in combination relative to (1) the maximum, rather than normal operation, withdrawal rate for the four units; or (2) river flows below Drought Level 3 fail to recognize the infrequent, short-term nature of the former and the unrepresentative nature of the latter in terms of likely conditions. *See* Staff EC 1.2 Rebuttal Testimony at 31-36.

4.47 While putting somewhat more stock in the non-EPA flow percentage elements of the Staff's impact assessment, which are discussed in sections IV.A.5.c, IV.A.6.c, IV.A.7.b, below, as a decisional basis for that NEPA determination, we nonetheless find nothing in the Staff's river flow analysis that renders this an element fatal to the Staff's impacts analysis. Certainly, if the 5% mark is utilized, as EPA seemed to contemplate, in conjunction with mean annual flow, which in the case of the VEGP site is in the neighborhood of either 6991 cfs, per a recently

installed Waynesboro gauge located near the facility,¹⁴ *see id.* at 4, or the 8830 cfs figure from the FEIS, *see* FEIS at 5-8 to -9, 7-4 to -5, the normal cumulative withdrawals of all four plants under the Staff's revised figures fall well below the 5% figure,¹⁵ *see* Staff Revised Withdrawal Tables at unnumbered page 1. Even when considered relative to the Thurmond Dam release figures utilized in the FEIS, which appear to be conservative relative to what likely is actually flowing past the VEGP site, *see supra* note 14, the cumulative withdrawals associated with normal operations, which we consider the appropriate reference point for this purpose,¹⁶ exceed the 5% figure only below Drought Level 3. This, however, is low-flow territory that is likely to be entered very infrequently,¹⁷ and then only under the watchful eye of Georgia State environmental resources officials with authority, as exists currently relative to Units 1 and 2, to order water withdrawal rates (along with power production) to be significantly reduced or curtailed entirely to protect aquatic biota in appropriate circumstances, *see* Staff EC 1.2 Direct Testimony at 79; Tr. at 797; Exh. NRC00001C, at H-12 ([NRO, NRC], NUREG-1872, "[FEIS for an [ESP] at the [VEGP] Plant Site]" (Aug. 2008) (Apps. A-J) (prior to operating authorization, SNC required to obtain revision of existing Georgia Department of Natural Resources (GDNR) permit

¹⁴ Although there was some dispute regarding the utility of the information from this gauge because it was not utilized by Staff in its FEIS analysis given it had been in place only since January 2005, *see* Staff EC 1.2 Direct Testimony at 65; Sulkin EC 1.2 Rebuttal Testimony at 3, *see also* Exh. NRC000026 (Waynesboro-Thurmond Discharge Graph); Exh. NRC000041 (Table Comparing Thurmond Dam Discharge with Waynesboro, Georgia United States Geological Survey Gauge), we consider it persuasive evidence that the flows at the VEGP site generally are higher than those at Thurmond Dam, a likely consequence of inflow from tributaries and groundwater between the dam and the Waynesboro gauge location. *See* Tr. at 800-01.

¹⁵ At the hearing, Joint Intervenors witness Mr. Sulkin agreed that the EPA 5% guideline is indeed properly referenced to the annual average flow, and not to postulated lower flows such as 3100 cfs. *See* Tr. at 920-24. So while both the Staff and Joint Intervenors calculated withdrawal percentages for a range of postulated flow rates, the record supports the conclusion that based on the annual average flow, even under recent drought conditions, the withdrawal fraction projected for Vogtle Units 3 and 4 would not exceed the EPA 5% guideline. *See* FEIS 1A, at 5-8 to -9.

¹⁶ The possibility exists for "maximum" withdrawals by the existing and the proposed units, either singularly or in combination with any or all of the other units, so as to produce withdrawals in excess of what is generated by normal operation and so possibly exceed the 5% EPA threshold in pre-Drought Level 3 conditions. *See* Joint Intervenors Discharge Tables at 2 (Table 4). Nonetheless, as was noted by the Staff, because these maximum withdrawal events generally are associated with cooling tower water chemistry control activities rather than changes in consumptive water use, maximum withdrawals (as well as maximum blowdowns that return larger volumes of water to the river) are likely to be rare, one-unit events that would not provide the basis for an increase in the Staff's impact assessment of SMALL. *See* Staff EC 1.2 Direct Testimony at 79.

¹⁷ Certainly this is the case relative to Drought Level 4, a scenario that Mr. Sulkin suggested needed to be assessed, as well as the absolute "worst case" scenario in which the water level in the reservoir pool is so low that USACE is unable to allow any Thurmond Dam discharge, *see* Tr. at 938-39.

authorizing Savannah River water withdrawal for cooling makeup and in-plant use) [hereinafter FEIS 1C]. Consequently, on the record before us, we are unable to conclude that any aspect of the Staff's flow analysis provides a basis for overturning or substantially revising the Staff's impact assessment findings.¹⁸

c. "Lower Baseline" for "Special Status Species"

4.48 In their proposed factual findings and legal conclusions, Joint Intervenor also suggest that in the context of this contention it should be recognized that what they refer to as "special status species," i.e., species that are threatened, endangered, or of concern under state or federal law, "are considered 'rare' and therefore vulnerable to unacceptable impacts from construction and operation of

¹⁸ On the matter of water flows, while not mentioned in Joint Intervenor's proposed findings, *see supra* note 12, in his testimony Dr. Young also raised an issue about the degree to which the FEIS dealt adequately with the question of aquatic species' preadaptation to large variations in flows, given it did not distinguish between the impacts of natural and human-induced variability. In support of this proposition, Dr. Young cited several scientific articles he asserted establish that human-induced variability, combined with related anthropogenic stressors such as entrainment mortality, is a primary cause of decreased freshwater biodiversity, and declared that the Thurmond Reservoir is one cause of the native species decline because it eliminates extremely low flows. *See* Young EC 1.2 Direct Testimony at 9; Young EC 1.2 Rebuttal Testimony at 7. Although it seems apparent that flow variability is an important factor in maintaining a healthy and diverse aquatic riverine ecology, *see* Staff EC 1.3 Rebuttal Testimony at 23-24, the articles cited by Dr. Young, which concern either the impacts of impoundments and other large-scale aquatic environment modifications, *see* Exh. JTI000016, at 912 (Caryn C. Vaughn & Christopher M. Taylor, *Impoundments and the Decline of Freshwater Mussels: A Case Study of an Extinction Gradient*, 13 *Conservation Biology* 912 (Aug. 1999)); Exh. JTI000018, at 183 (P.J. Cosgrove & L.C. Hastie, *Conservation of Threatened Freshwater Pearl Mussel Populations: River Management, Mussel Translocation and Conflict Resolution*, 99 *Biological Conservation* 183 (2001)); Exh. JTI000019, at 475 (James B. Layzer & Edwin M. Scott, Jr., *Restoration and Colonization of Freshwater Mussels and Fish in a Southeastern United States Tailwater*, 22 *River Res. & Applications* 475 (2006)), or a hypothetical aquatic species extinction rate based on general habitat deterioration, *see* Exh. JTI000017, at 1220 (Anthony Ricciardi & Joseph B. Rasmussen, *Extinction Rates of North American Freshwater Fauna*, 13 *Conservation Biology* 1220 (Oct. 1999)), provide no basis for concluding that these events, in combination with entrainment/impingement/thermal impacts such as those involved for Vogtle Units 3 and 4, create a situation in which species cannot adapt so as to constitute a primary cause of decreased Savannah River biodiversity. This is particularly so in light of the existing daily flow fluctuations in the VEGP facility vicinity, including recent drought-related low-flow conditions and periodic high-flow releases per a USACE-initiated river management program; the relatively minor impact the Vogtle 3 and 4 units will have on the overall river level; and a Staff-cited study that concluded very large flow reductions, far in excess of those expected for the additional Vogtle facilities, need to occur in a river the size of the Savannah River before fish populations will be affected. *See* Staff EC 1.2 Rebuttal Testimony at 22-25 (citing Exh. NRC000054, at 13 (Brian D. Richter & Gregory A. Thomas, *Restoring Environmental Flows by Modifying Dam Operations*, 12 *Ecology & Soc'y* 12 (2007)); Exh. NRC000027, at 447 (Mary C. Freeman & Paula A. Marcinek, *Fish Assemblage Responses to Water Withdrawals and Water Supply Reservoirs in Piedmont Streams*, 38 *Env'tl. Mgmt.* 435 (2006)).

nuclear power plants. In other words, special status species have a low baseline, whether caused by natural occurrences or human activities.” Joint Intervenors Proposed Findings at 11. Both SNC and the Staff contest this approach, asserting that Joint Intervenors have not shown how the purported “rarity” or “low baseline” attributed to these species has any relevance vis à vis the adequacy of the Staff’s impingement/entrainment/thermal impact assessments. *See* SNC Reply Findings at 4-6; Staff Reply Findings at 7.

4.49 We find that we cannot accept these “special status species” or “low baseline” characterizations either. Initially, we note that we are unaware of any case law that indicates the mere existence of an endangered/threatened species in the area of a proposed project necessarily mandates a finding that the species is, by reason of its protected status, automatically “vulnerable” to that project. To be sure, the presence of what the Staff denotes as “important” creatures in the vicinity of a proposed project merits close scrutiny (1) to identify any potential interactions between the project and those species, as well as the potential impacts of those interactions relative to the species; and (2) if impacts can occur, to assess whether those impacts will be SMALL, MODERATE, or LARGE by reason of measures that can, or cannot, mitigate or eliminate those impacts. Clearly, this is not the same as declaring such a species per se “vulnerable” to a proposed project.

4.50 It should be added that the process that occurred in this proceeding reflects this approach. We explore in the sections that follow below the details of how the Staff carried out its analysis relative to the potential impacts of impingement/entrainment/thermal discharge on important species, but note here one example of the assessment process, as it was properly undertaken in this instance, that seems to belie, if not run directly counter to, the Joint Intervenors attempt necessarily to equate “rare” with “vulnerable.” Relative to one of the important species implicated here — the shortnose sturgeon — the Staff, acting in accord with its NEPA/Endangered Species Act (ESA) consultation responsibilities, requested and obtained from the National Marine Fisheries Service (NMFS), as the designated authority for the shortnose sturgeon, *see* Testimony of Dr. Charles C. Coutant on Behalf of [SNC] Concerning [EC] 1.3 (fol. Tr. at 951) at 10 [hereinafter Coutant EC 1.3 Direct Testimony],¹⁹ that organization’s assessment of the impact of the proposed action of issuing an ESP for Vogtle Units 3 and 4

¹⁹In citing this testimony relating to contention EC 1.3, we note, as is apparent from our discussion in section IV.B.5.a, below, that the matter of the “special status species” at issue under contention EC 1.2 is not dissimilar from the matter of the “extremely sensitive biological resource” that is at issue relative to contention EC 1.3.

upon that species.²⁰ That letter states “[t]here is no designated critical habitat in or near the project area” and “this proposed action is not likely to adversely affect shortnose sturgeon.” Exh. SNC000022, at 3-4 (Letter to William Burton, NRC, from Roy E. Crabtree, Ph.D., Regional Administrator, NMFS (Aug. 11, 2008)) [hereinafter NMFS Consultation Letter]. Thus, while the status of a species as “important” because of its relative rarity wins it particular scrutiny in the context of an impacts assessment associated with a project, that does not mean that species vulnerability to that project must be assumed in assessing the NEPA implications of the project, regardless of the factual circumstances involved.²¹ *See also* Tr. at 1048-49 (Dr. Coutant testifies that operation of federal hydropower system and commercial fishing is permitted in areas occupied by endangered salmon).

4.51 With the foregoing general items in mind, we look next to the adequacy of the Staff’s NEPA assessment of the impacts of impingement/entrainment/thermal discharge in the context of Joint Intervenors challenges to the Staff’s findings, beginning with impingement.

²⁰ Such an assessment was not sought for the robust redhorse, the other fish species whose previously assumed extinction makes it of interest here, because the redhorse is a state-designated species that has not been named as endangered under the federal ESA. *See* Countant EC 1.3 Direct Testimony at 10.

²¹ By the same token, although Dr. Young in his testimony maintains that the Staff’s FEIS is deficient because it has failed to document the causes of population decline in the Savannah River for at least six fish species that have resulted in this low baseline, *see* Young EC 1.2 Direct Testimony at 4, we are unable to find this concern to be meritorious. Putting aside his ostensible failure specifically to identify all the species, it is not apparent how the potential impingement/entrainment/thermal impacts of implementing a to-be-built closed-cycle cooling system would depend generally on the past cause or causes of the population decline of a particular species. Nor, given our conclusion for the reasons discussed in this section, that the preponderance of the evidence supports the Staff’s impacts assessment of SMALL, can we conclude that the facility would contribute a significant added source of mortality so as to make such an analysis potentially relevant. Moreover, as the Staff pointed out, in the FEIS it provided information regarding the causes of decline for several important species, specifically eels (overfishing, seaweed harvesting, loss of adult habitat because of dams, dredging and wetland destruction, and migration past dams and water intakes), and striped bass (Savannah River harbor modifications), and noted recruitment problems with juvenile shortnose sturgeon associated with nursery habitat water quality degradation. *See* Staff EC 1.2 Rebuttal Testimony at 9-10. We also fail to see the relevance of this concern relative to the robust redhorse, given that the apparent reasons for that species survival challenges, including water quality degradation, overharvesting in the late 1800s, introduction of nonnative species, sedimentation from poor land use practices, development of hydropower facilities, and the presumed low number of wild individuals as opposed to introduced individuals, *see* Robust Redhorse Conservation Strategy at 8-10, bear no relationship to the impacts of a closed-cycle cooling system.

5. *Impingement Impacts*

a. *Impingement Defined*

4.52 Relative to the sufficiency of the Staff's impingement impacts analysis that is at issue under this contention, we note initially that, as was discussed in section IV.A.2, above, proposed Vogtle Units 3 and 4 would employ a closed-cycle wet cooling system to dissipate the waste heat that is a byproduct of normal power generation. Notwithstanding the "closed-cycle" nature of this system, some water is lost via evaporation, blowdown, and drift. To replace this water loss, makeup water would be pumped from the Savannah River into the cooling water system for Units 3 and 4 through an intake structure common to both units. *See* FEIS 1A, at 3-6, 3-8; Staff EC 1.2 Direct Testimony at 33. Traveling screens, typically of 3/8-inch mesh, would be located in the intake structure to prevent debris and large organisms from entering the intake pumps. *See* FEIS 1A, at 3-8 to 3-9; Staff EC 1.2 Direct Testimony at 32. "Impingement" occurs when aquatic organisms, most typically fish, macroinvertebrates, shellfish, and aquatic macrophytes, collide with and are trapped against these cooling system intake screens by the force of the water drawn into the system. This ultimately can result in the starvation, exhaustion, asphyxiation, and descaling of an aquatic species. *See* FEIS 1B, at 5-29 to 5-30; Staff EC 1.2 Direct Testimony at 32.

b. *RG/ESRP Guidance re Assessment of Impingement Impacts*

4.53 Regulatory guidance associated with the Staff's NEPA assessment of the potential impacts of any impingement that may be attendant to a license application for a proposed facility is found in ESRP § 5.3.1.2, Aquatic Ecosystems. This ESRP provision states that the scope of the review should include an analysis of the effects of impingement in sufficient detail to allow the reviewer to predict potential impacts on "important species" and to evaluate the potential significance of such impacts. 1999 ESRP at 5.3.1.2-1. According to this guidance, this determination involves the evaluation both of station-related factors that influence impingement loss rates as well as life history data for the various species present that would provide information indicating their susceptibility to impingement. The reviewer is to determine, based on the cooling system being employed (e.g., closed-cycle or once-through), the system intake design, and the life history data if the effects of impingement on "important species" would be destabilizing or noticeably alter population levels. *See id.* at 5.3.1.2-5 to -7. The ESRP directs that the reviewer also draw on the experience of comparable, currently operating power stations to assist in the impact prediction. *See id.* at 5.3.1.2-6. The ESRP further states that "[i]n the most practical terms, the reviewer's final evaluation is determined through professional judgment based on the pertinent data and analyses." *Id.* at 5.3.1.2-5. If, according to the Staff, "the reviewer determines that the effects of

impingement would not be detectable or noticeably alter population levels, then the reviewer is to state that conclusion and the review is completed.” See Staff EC 1.2 Direct Testimony at 36.

c. Adequacy of Staff Impingement Assessment and Conclusions

4.54 According to the Staff, its conclusion in section 5.4.2.9 of the FEIS that impacts due to impingement on the intake screens to fish and shellfish populations in the vicinity of the site would be minor was based on six factors: (1) the planned low through-screen intake velocity of less than 0.5 fps at the minimum river water level of 78 feet; (2) the Applicant’s use of closed-cycle cooling, which reduces river water withdrawal substantially; (3) a calculated intake canal flow velocity toward the intake screens of about 0.1 foot per second; (4) an evaluation of life history, distribution, and abundance data of aquatic species, including “important species” inhabiting the Middle Savannah River; (5) the past absence of significant impingement episodes at the existing intake of Vogtle Units 1 and 2 and information collected during NRC site visits; and (6) the results of the SRS impingement study. See *id.* at 35.

4.55 With one exception, Joint Intervenors have mounted no challenge to the Staff’s FEIS impingement findings in their proposed legal and factual findings. The exception relates to statements in the 1998 NMFS recovery plan for the shortnose sturgeon that make mention of impingement events involving the sturgeon and power plants, including the Salem nuclear power plant in New Jersey. See Joint Intervenors Proposed Findings at 12-13 & nn.53-54 (citing Exh. JTI000026, at 53, 55 (NMFS, U.S. Dep’t of Commerce, Final Recovery Plan for the Shortnose Sturgeon *Acipenser brevirostrum* (Dec. 1998) [hereinafter NMFS Recovery Plan]); see also Young EC 1.2 Rebuttal Testimony at 8. While the NMFS plan cited by Joint Intervenors does reference impingement episodes involving the sturgeon, it says nothing about any shortnose sturgeon impingement situation at the Vogtle facility. Indeed, these Joint Intervenor-framed NMFS concerns about sturgeon impingement are entirely gainsayed by that agency’s stated assessment that Vogtle Units 3 and 4 will have no significant impact relative to the shortnose sturgeon. See *supra* section IV.A.4.c. We thus are unable to find that the NMFS recovery plan provides any basis for revising the Staff’s impingement impact assessment finding.

4.56 In addition, Joint Intervenors witness Dr. Young raised questions, although not reiterated in their proposed findings, see *supra* note 12, regarding the adequacy of the baseline data and the range of river flows supporting the Staff’s assessment, see Young EC 1.2 Direct Testimony at 4, 9. We previously have addressed these items in sections IV.A.4.a and IV.A.4.b, above, and find they provide no basis for modifying the Staff’s finding of minor impacts from impingement.

d. *Role/Adequacy of SNC Impingement Study*

i. DESCRIPTION OF SNC IMPINGEMENT STUDY

4.57 Separate from the Staff's impingement impact assessment efforts, beginning in March 2008 SNC began a study of the impingement associated with the operation of its existing Vogtle Units 1 and 2, with the intent to infer an impingement rate for the similarly designed intake structure for proposed Units 3 and 4. *See* Exh. SNCR00004, at 3, 5 (Interim Report of Fish Impingement at the Plant Vogtle Electric Generating Plant (Jan. 2009)) [hereinafter SNC Impingement Study]. The impingement study, conducted at SNC's request and under its direction by Georgia Power Company, "was designed as a 12-month study encompassing twice per month sampling" of the material collected from the traveling screen screen-wash system for Vogtle Units 1 and 2. *Id.* at 3. The traveling screens, which continually rotate at a rate of approximately 5 feet per minute, collect debris that is then washed by water spray into the trash basket. The screen wash water is then returned to the intake structure. *See id.* at 7-8.

4.58 Each sampling event consisted of a 24-hour period divided equally into two 12-hour samples: a day sample and a night sample. Prior to a sampling event, the screens were rotated for a full rotation cycle. Then an insert net was positioned in the system to catch material washed off the screens. After each of the traveling screens was rotated and washed over the course of the 12-hour sample, the net was manually removed. *See id.* at 9-10.

4.59 Fish and shellfish were separated from other debris and then sorted by species. Samples either were preserved in formalin and transported to an offsite laboratory or were processed onsite. The weight and length of each organism was recorded during processing. From these data, the estimated impingement rate for a time period was calculated by multiplying the average impingement rate per day times the number of days within that time period (approximately 2 weeks). The study participants also collected data on the sampling events for quality control purposes in accordance with Georgia Power Environmental Laboratory procedures, as well as data on intake water flow rates, ambient water temperature, ambient air temperatures, river stage and discharge, and precipitation. *See id.* at 10-12.

4.60 Prior to the March 2009 evidentiary hearing in this proceeding, SNC submitted the interim report of its impingement study, which represented data from twenty out of twenty-four collection periods (i.e., a 10-month interval). *See id.* at 10, 13. The study was expected to be completed at the end of February 2009. *See id.* at 3. From March 2008 to December 2008, a total of 157 organisms representing twenty-one species had been collected, none of which were protected species. *See id.* at 13. The total impinged biomass collected in the sampling process was 865.2 grams (1.9 pounds). *See id.* at 14. SNC witness Mr. Dodd, who participated in the design, implementation, and analysis of the study, *see*

Dodd/Montz EC 1.2 Direct Testimony at 5, used this information to extrapolate the 10-month data to a total 365-day impingement rate of 2421 fish at an approximate weight of 30.1 pounds of biomass, *see* Tr. at 633. SNC thus concluded that “Plant Vogtle’s Unit 1 & 2 ten-month impingement mortality effect on the fish population of the Savannah River is likely[] highly insignificant even when considering the addition of a second similar intake structure for Vogtle Units 3 & 4.” Dodd/Montz EC 1.2 Direct Testimony at 8; *see also* SNC Impingement Study at 17.

ii. ADEQUACY OF SNC IMPINGEMENT STUDY

4.61 Joint Intervenors raised no specific concerns about the SNC impingement study in their proposed findings and conclusions, *see supra* note 12, but in his prefiled testimony, Dr. Young noted that the study did not include a full year’s worth of data. *See* Young EC 1.2 Rebuttal at 8. While this point is certainly worthy of consideration given the Staff’s ESRP guidance, *see* 1999 ESRP at 2.4.2-6, as we review the matter in this particular instance, given the study by all appearances was well planned and executed, we do not find that its 10-month duration at the time it was submitted for the record constitutes a material deficiency significant enough to lead us to discount it in its entirety.²² Certainly, nothing on the record contradicts the results of the Units 1 and 2 impingement study, which fully supports the Staff finding that the aquatic environment impacts of impingement from Vogtle Units 3 and 4, both alone and in concert with Units 1 and 2, are likely to be minor.

6. *Entrainment Impacts*

a. *Entrainment Defined*

4.62 Also at issue under this contention is the sufficiency of the Staff’s findings that entrainment of aquatic species via the common makeup water intake for proposed Vogtle Units 3 and 4 would have only minor impacts on the aquatic environment. “Entrainment” occurs when aquatic organisms are carried into the cooling system. In contrast to impinged aquatic organisms, aquatic organisms that become entrained are normally relatively small benthic (bottom organisms), planktonic (surface organisms), and nektonic (water column organisms) forms, including the early life stages of fish and shellfish that often serve as prey for

²² Our determination in this regard should not be taken as downplaying or questioning the importance of the Staff’s ESRP guidance indicating that a study such as that conducted by SNC needs to include 1 year’s worth of data to reflect seasonal variations in aquatic populations. An applicant that submits a study that does not meet this guidance does so at its peril, creating the real risk that it may expend considerable monetary and personnel resources without purpose.

larger organisms. Because of their small size, these organisms generally are not impeded by the intake screens that result in species impingement, but entrainment nonetheless is most often lethal due to the mechanical, thermal, and toxic stresses that the organisms are exposed to as they pass through the cooling system. *See* FEIS 1B, at 5-30; Staff EC 1.2 Direct Testimony at 33.

b. RG/ESRP Guidance re Assessment of Entrainment Impacts

4.63 In assessing entrainment impacts, in addition to the guidance described in section IV.A.5.b, above, relative to impingement, as it is pertinent here the ESRP indicates that the reviewer is to determine initially if the facility “is being located at a site close to an existing nuclear facility.” 2007 ESRP at 5.3.1.2-6. If it is, then the ESRP specifies that the reviewer should “[d]etermine whether the applicant has a current [National Pollutant Discharge Elimination System (NPDES)] permit with a Clean Water Act Section 316(b) determination, if appropriate, or equivalent State permits and supporting documentation.” *Id.* If no section 316(b) determination is available, the ESRP instructs the reviewer to “[i]dentify the ‘important’ aquatic organisms and their life stages susceptible to . . . entrainment.” *Id.* at 5.3.1.2-6 to -7. Following the determination that “important” aquatic species are present and susceptible to entrainment, the reviewer is instructed to “[e]stimate the levels of susceptibility in either qualitative or quantitative terms, or both” and to “estimate the survival rates for those species entrapped, impinged or entrained by relying on experience at other stations.” *Id.* at 5.3.1.2-7. ESRP § 5.3.1.2 also instructs the reviewer to “[a]ssume 100% mortality for all entrained biota.” *Id.* at 5.3.1.2-8.

c. Adequacy of Staff Entrainment Assessment and Conclusions

4.64 Although the proposed Vogtle Units 3 and 4 are adjacent to the existing Units 1 and 2 that are closed-cycle cooling systems and have an NPDES permit, the existing units do not have a Clean Water Act § 316(b) determination. Because there were no specific entrainment data available from the adjacent VEGP Units 1 and 2 at the time of preparation of the FEIS and because those units did not have a section 316(b) determination, in accord with the ESRP guidance the Staff estimated the levels of susceptibility to entrainment of aquatic organisms that would be impacted. *See* Staff EC 1.2 Direct Testimony at 48; FEIS 1B, at 5-30 to -32. As was the case with its impingement analysis, having identified “important” species present that would be susceptible to entrainment, including the shortnose sturgeon and the robust redhorse by reason of their respective federal and state endangered species designations, the Staff continued with its analysis under ESRP § 5.3.1.2, ultimately concluding that, even assuming 100% of the

organisms entrained in the cooling water system for proposed Units 3 and 4 (as well as existing Units 1 and 2) would not survive,²³ the impacts from entrainment would be minor. *See* FEIS 1B, at 5-32.

4.65 A number of factors are cited by the Staff as the basis for this determination. Noting that the amount of water withdrawn from the source waterbody greatly influences the degree to which entrainment affects aquatic biota, factors cited by the Staff as important support for its conclusion included SNC's use of a closed-cycle cooling system, the design and location of the cooling intake canal and structure, including its placement along a straighter portion of the river (as opposed to near an oxbow where larval densities are significantly greater), and the use of a weir wall and skimmer wall at the mouth of the intake. *See* Staff EC 1.2 Direct Testimony at 46, 48-55; Staff EC 1.2 Rebuttal Testimony at 18. The Staff also considered previous sampling data, the high fertility of most species inhabiting rivers, and the high natural mortality rates of eggs and larvae. *See* Staff EC 1.2 Direct Testimony at 46. Also of significance to the Staff are previous sampling relating to SRS operations, which it concluded indicated that historic operations of the SRS intake did not have a discernable impact on fish species in the Savannah River despite water withdrawals much greater than those anticipated for Vogtle Units 3 and 4, and the 1985 FES associated with the licensing of Vogtle Units 1 and 2, which assumed a uniform distribution of drift organisms and found entrainment would have an insignificant effect on drift organisms. *See id.* at 50-52. Moreover, with respect to important species, as described in section IV.A.4.c, above, of import to the Staff is the NMFS concurrence with the Staff's conclusions regarding impacts to the shortnose sturgeon, including the Staff's assumptions related to the potential loss of shortnose sturgeon eggs and larvae. *See id.* at 59.

4.66 Also of importance to the Staff, as was discussed in section IV.A.4.b, above, is the question of the impact of river flow rates on entrainment and the EPA 5% withdrawal factor. While observing that entrainment impacts (and possibly impingement impacts) could increase under very-low-flow conditions, the Staff determined that such flows and subsequent losses would be temporary and are

²³Notwithstanding this presumption of 100% mortality, in his testimony Dr. Young challenges the adequacy of the FEIS regarding entrainment on the basis that there is not enough life histories information to identify which species would be entrained. *See* Young EC 1.2 Direct Testimony at 5. From our perspective, the FEIS discussion described in the Staff's testimony, *see* Staff EC 1.2 Direct Testimony at 56-58, resolves this concern. The 100% mortality presumption also appears to resolve Dr. Young's related concern about the inability of some larval fish to overcome the predicted water intake velocity. *See* Young EC 1.2 Direct Testimony at 6. Of course, as the Staff points out, *see* Staff EC 1.2 Rebuttal Testimony at 6, the relevance of this concern is not apparent since it provides nothing, in the context of Joint Intervenors challenge to the adequacy of the Staff's entrainment impact analysis, that addresses the central issue of the number of larval fish that might be entrained.

unlikely to have any persistent long-term impacts on populations of aquatic organisms in the Savannah River. *See id.* at 73-74.

4.67 The Staff also testified that the SNC 2008 study concerning the hydraulic zone of influence (HZI) at Vogtle Units 1 and 2 further confirmed the Staff entrainment analysis. That study indicated that at a river flow of 4482 cfs and a water withdrawal rate of 110 cfs for Units 1 and 2, the Units 1 and 2 intake structure had an area of hydraulic influence of 1.10 acres, of which 0.14 acre extended into the Savannah River and only about one-sixth of the way across the river in the vicinity of the VEGP site. *See* Staff EC 1.2 Direct Testimony at 60; Exh. NRC000031, encl. 1, at 2 (Letter from J. A. “Buzz” Miller, Senior Vice President, SNC Nuclear Development to NRC Document Control Desk, encl. 1 (May 27, 2008) (Impingement and Entrainment Monitoring Update at Plant Vogtle)) [hereinafter Attachment to May 27, 2008 Letter]. As was reflected in the SNC testimony regarding this study, the river flow at the time of the study was representative of average river flows past the site even during a period of drought in the Savannah River, both units were operating at or near 100% of their generating capacity, and the cooling water intake structure was operating in its normal pumping configuration. *See* Dodd/Montz EC 1.2 Direct Testimony at 14-16; Dodd/Montz EC 1.2 Rebuttal Testimony at 3-4. The Staff likewise testified that the SNC study was conducted on a day when the water withdrawal rate for Units 1 and 2 was significantly greater than the typical daily withdrawal rate, or even the maximum observed average monthly withdrawal rate for 2006, so that the conditions under which the study was conducted were conservative for assessing the hydraulic zone of influence. *See* Staff EC 1.2 Rebuttal Testimony at 20-21. The Staff concluded that this study provided additional support for the Staff’s FEIS conclusion that the proposed Vogtle Units 3 and 4 intake structure would affect only a fraction of the river, comparable to that of Units 1 and 2, so that the vast majority of organisms moving up or down the river would not be adversely affected by the influence of the intake structures. *See* Staff EC 1.2 Direct Testimony at 60-61.

4.68 Finally, the Staff testified that it had become aware of relevant additional sampling data available since the FEIS was issued, one source of which was the SNC entrainment study discussed in section IV.A.6.d, below. As the Staff noted, the study provided an estimate of an average daily entrainment rate of 1230 organisms (eggs and larva),²⁴ whereas the estimated daily source water drift abundance was 312,039 organisms. *See* Staff EC 1.2 Direct Testimony

²⁴In its direct testimony, the Staff cites to SNC’s interim report that listed the daily rate as 1302 organisms. *See* Staff EC 1.2 Direct Testimony at 25 (citing Exh. NRC000030, at 25 (Draft Interim Report of Fish Impingement and Entrainment Assessment at the Plant Vogtle Electric Generating Plant) (Sept. 2008)). On March 6, 2009, SNC notified the Board that it was specifically revising this number from 1302 to 1230. *See* Notice of Revised Testimony and Exhibit (Mar. 6, 2009) at 1-2.

at 59; Exh. SNCR00005, at 23 (Entrainment Assessment at the Plant Vogtle Electric Generating Plant (Oct. 2008)) [hereinafter SNC Entrainment Study]. This suggests that only about one-third of 1% of the organisms in the river's drift community were being entrained. According to the Staff, this SNC study information demonstrates that eggs and larvae are several times more numerous in samples from the Savannah River than in samples from the Units 1 and 2 intake canal. The Staff also pointed out that the projected entrainment rate of 1230 organisms per day was very small compared to the projected entrainment rates of 64,000 organisms per day in 1984, and 71,000 organisms per day in 1985, when the SRS was operating three nuclear production reactors with once-through cooling, as well as a coal plant, that nonetheless did not appear to have an impact on the fishery despite being a much higher rate than has been projected for Vogtle. *See* Staff EC 1.2 Direct Testimony at 59-60. All this information, according to the Staff, supports its conclusion that the impacts of entrainment for Vogtle Units 3 and 4 would be minor. *See id.* at 60.

4.69 In contesting this Staff determination that the entrainment impacts of proposed Vogtle Units 3 and 4 would be minor, Joint Intervenors have made a variety of arguments, some that are outlined in their proposed findings of fact and conclusions of law, and some that are found only in the testimony of their supporting witness Dr. Young. We examine their concerns below.

i. ADEQUACY OF ENTRAINMENT ASSESSMENT REGARDING SHORTRNOSE STURGEON

4.70 In their proposed findings and conclusions, relative to the shortnose sturgeon, a federally designated endangered species, Joint Intervenors assert that, based on (1) the NMFS sturgeon recovery plan that indicates shortnose sturgeon fish and larvae are sometimes impinged/entrained in the various areas they inhabit in the eastern United States, including the Savannah River; and (2) a 1980s SRS study indicating that shortnose sturgeon larvae were found near the Vogtle Units 1 and 2 facility,²⁵ it must be assumed there will be some entrainment of these sturgeon by Units 3 and 4. *See* Joint Intervenors Proposed Findings at 12-14 (citing NMFS Recovery Plan at 53, 55; Paller Ichthyoplankton Distribution, at 3-112 to -113). Further, notwithstanding the fact that the SRS production reactors

²⁵ Although Joint Intervenors proposed findings suggest that the authors of these surveys "concluded that some sturgeon could be entrained by the [SRS] cooling water intake," Joint Intervenors Proposed Findings at 13, we think a fair reading of the cited pages of the survey supports only a finding that probably two of the seven larval sturgeon found were shortnose sturgeon and they were taken in the river as part of a source water survey in locations that might have brought them into contact with the SRS intake.

have not operated since the early 1990s,²⁶ Joint Intervenors contend that the effects of the high entrainment rates from the SRS facility's cooling water intake over the years, in combination with the continued operation of Vogtle Units 1 and 2, are still being felt to the extent that the shortnose sturgeon population in the river, for which "the adult population is increasing, but juveniles are still rare," is suffering from a "depleted baseline population" from which it has not recovered. *Id.* at 13 (quoting FEIS 1A, at 290 to -91). As a consequence, entrainment of even a small number of shortnose sturgeon eggs and larvae will be "clearly noticeable and sufficient to destabilize" the species such that the Staff's entrainment impacts assessment for proposed Vogtle Units 3 and 4 should have been characterized as LARGE. *Id.* at 13-15.

4.71 Based on the record in this proceeding, we are unable to endorse Joint Intervenors position in this regard. As is generally the case with the other aquatic species that inhabit the environs in the vicinity of the Vogtle facility, *see* Staff EC 1.2 Rebuttal Testimony at 14 (agreeing that some individual organisms, particularly those in early developmental stages, will be entrained and lost from the fishery), we certainly are not in a position to say that no shortnose sturgeon larvae will be entrained (or adult sturgeon impinged) as a result of the operation of Units 3 and 4. On the other hand, the record before us supports the Staff's finding of minor impacts such that there will be no detectable changes in fish populations attributable to operation of Vogtle Units 3 and 4. Just as we are not willing to assume that this endangered species is per se vulnerable to this project, *see* section IV.A.4.c, above, we also are not persuaded that, in the face of the NMFS assessment and the apparent increase in adult members of the population, *see* FEIS 1A, at 2-90 to -91, that the possible entrainment of some small number of sturgeon larvae or eggs will constitute a LARGE impact.

4.72 In making this determination, we should not be read to derogate the importance, which the Staff recognized, *see* Tr. at 1079-81, of any instance in which a facility's operation results in the taking of a member of an endangered species. That is a serious issue. At the same time, we cannot accept the largely unsupported proposition Joint Intervenors espouse in the face of an evidentiary record showing that (1) recognized, reasonably effective measures, including the intake facility's location relative to the river and its design using a weir wall and skimmer wall, will be put in place to forestall such a taking, *see* Coutant EC 1.2 Direct Testimony at 14-17; Staff EC 1.2 Direct Testimony at 48, 52, 54; Tr. at 699-702, 787-88, 838; (2) the ongoing operation of Vogtle Units 1 and 2, as well

²⁶ As Dr. Young noted, the SRS production reactors have been decommissioned. *See* Tr. at 934. As is outlined in the history of the SRS production reactors that is found on the SRS website, of which the Board takes judicial notice, *see* 10 C.F.R. § 2.337(f), the last SRS production reactor, the K-reactor, was placed in cold-standby condition in 1993. *See* [SRS] History Highlights, <http://www.srs.gov/general/about/history1.htm> (last visited June 19, 2009).

as the reasonably contemporaneous entrainment survey by SNC, have provided no indication of any shortnose sturgeon takings, Staff EC 1.2 Direct Testimony at 35, 60; Tr. 631, 705-06; (3) any entrainment impacts by the SRS facility occurred using a different, more intrusive intake system that, in any event, has not been operating for some 15 years, *see* Staff EC 1.2 Direct Testimony at 52; and (4) the spawning locations and the egg attachment/larval drift habits of the shortnose sturgeon do not lend themselves to ready interaction with the existing and proposed Vogtle units intake facilities, *see* FEIS 1A, at 2-89 to -93; FEIS 1B, at 5-41 to -42; Exh. NRC000046, at 179-80 (Alan M. Richmond & Boyd Kynard, Ontogenetic Behavior of Shortnose Sturgeon, *Acipenser brevirostrum*, [1995] 1 Copeia 172)); NRC Staff Testimony of Dr. Michael T. Masnik, Rebekah H. Krieg, Dr. Christopher B. Cook, and Lance W. Vail Concerning [EC] 1.3 (fol. Tr. at 1062) at 15-16 [hereinafter Staff EC 1.3 Direct Testimony]; Tr. at 668-69, 702-03, 767-68. As a consequence, we see no basis for revising the Staff's impact assessment of SMALL relative to its findings associated with the shortnose sturgeon.

ii. ADEQUACY OF ENTRAINMENT ASSESSMENT REGARDING ROBUST REDHORSE

4.73 The other endangered species at issue relative to this contention is the Georgia state-designated robust redhorse. In their proposed findings, Joint Intervenor claim that the Staff assessment regarding this species is deficient because it fails to provide sufficient information about the life history of the larval or juvenile robust redhorse. *See* Joint Intervenor Proposed Findings at 16; Joint Intervenor Reply Findings at 3. Additionally, they assert that the sampling conducted under the SNC entrainment study, while purportedly failing to encounter any robust redhorse specimens in either the source water or intake area samples, did produce unidentified taxa that consisted of 20% unidentified members of the catostomid (sucker) family, a classification group that includes the robust redhorse. *See* Joint Intervenor Proposed Findings at 17 (citing Dodd/Montz EC 1.2 Direct Testimony at 12); Joint Intervenor Reply Findings at 6. According to Joint Intervenor, the fact that the entrained catostomids were post-yolk-sack larvae, in conjunction with the SNC failure to conduct genetic testing on this taxa to the species level, undermines any significance that might be attributed to the supposed failure of SNC to find any robust redhorse as part of its entrainment study. *See* Joint Intervenor Proposed Findings at 17; Joint Intervenor Reply Findings at 6.

4.74 Although testimony before the Board suggests that any lack of detailed life history information about this species, in particular its larval stage, could be attributable to its relative rarity, *see* Tr. at 778, the life history that is provided, which shows a species that does not spawn in the immediate vicinity of the VEGP site and tends to stay in the main channel rather than move toward the shore,

see FEIS 1A, at 2-88; FEIS 1B, at 5-36; see also Exh. NRC000017, at 1148, 1152 (Timothy B. Grabowski & J. Jeffery Isely, *Seasonal and Diel Movements and Habitat Use of Robust Redhorses in the Lower Savannah River, Georgia and South Carolina*, 135 Transactions of the Am. Fisheries Soc'y 1145 (2006)), when taken in conjunction with the other factors the Staff relied upon relative to its entrainment determination, including intake facility location/design and low intake velocities, does not suggest anything about the possibility of entrainment of this fish that would run contrary to the Staff's assessment finding of SMALL. Nor do we find Joint Intervenors reliance on the undifferentiated entrainment taxa to be persuasive evidence that a different assessment is merited. Besides the fact that there are eight other catostomid species known to be present in the Middle Savannah River about which we have no information regarding the yolk-sack status of their larvae, see Marcy Savannah River Fishes at 9, but among which the spotted sucker (*Minytrema melanops*) appears to be the most common in the Vogtle vicinity, see Exh. NRC000002, at 222 (Academy of Natural Sciences, Report No. 01-16F, 2000 Savannah River Biological Surveys for Westinghouse Savannah River Company (Sept. 2001)); 2001 ANSP Study at 215, the testing done by SNC was state-of-the-art analysis that went as far as practical for egg and larva identification for this type of survey, see Tr. at 630-31.

iii. ADEQUACY OF ENTRAINMENT ASSESSMENT OF AMERICAN SHAD

4.75 While not included in Joint Intervenors findings of fact, see *supra* note 12, in his testimony Dr. Young raised questions about the FEIS treatment of entrainment relative to the American shad, see Young EC 1.2 Direct Testimony at 8, one of the species the Staff identified as commercially important, see FEIS IA at 2-81 to -82. In this regard, Dr. Young challenges the adequacy of the baseline data provided, in particular asserting that the Staff's reliance on the demersal nature of shad eggs as concentrated along the bottom of the water column is inadequate given the 1995 SRS study by M. H. Paller *et al.*, regarding the horizontal distribution of American shad eggs in the drift near the VEGP site, which Dr. Young asserts showed an abundance of shad eggs toward the western/Georgian bank and supports the proposition that site-specific ichthyoplankton distribution studies near existing or proposed water intakes are important to permit the sensitive resolution of spatial patterns. See Young EC 1.2 Direct Testimony at 8 (citing Exh. JTI000004, at 2 (M.H. Paller *et al.*, *Statistical Methods for Detecting Ichthyoplankton Density Patterns That Influence Entrainment Mortality* (1995))). While, as the Staff points out, see Staff EC 1.2 Rebuttal Testimony at 16-17, the 1995 Paller report may be seen as supportive of the general proposition that the assumption of uniform distribution, which we discuss in more detail in section IV.A.6.d.iv, below, is not realistic, the report's significance here as a basis for extrapolating American shad entrainment impacts relative to Vogtle

facility impacts is tempered both by the distance of the Paller test sites some 3.5 miles upriver from the proposed intake structure and the fact that the report assesses the SRS once-through cooling system, which clearly would have larger entrainment impacts than the closed system employed for the Vogtle facilities given the substantial difference in water withdrawal rates.²⁷

d. Role/Adequacy of SNC Entrainment Study

i. DESCRIPTION OF SNC ENTRAINMENT STUDY

4.76 As was the case with the impingement study discussed in section IV.A.5.d, above, in an effort to characterize the current entrainment rate at the Vogtle Units 1 and 2 makeup water intake structure and use that information to infer an entrainment rate for the similarly designed intake structure for proposed Units 3 and 4, again at the request and under the direction of SNC, Georgia Power Company conducted an entrainment study. This study began in mid-March 2008 and concluded in late July 2008 based on the SNC assessment that this period represented the most biologically productive time period of the year for fish, when the occurrence of planktonic (drift) fish eggs and larvae is most prevalent in the Middle Savannah River. *See* SNC Entrainment Study at 5-7, 11.

4.77 Relative to the entrainment study, to provide a basis for comparison relative to what was found via the survey of existing documentary information, SNC conducted sampling of the source water in the Savannah River at the VEGP site as well as in the intake canal upstream of the intake pumps for the cooling system makeup water. Samples from both source water and canal water were collected at 6-hour intervals and then composited into one 12-hour “day” and one 12-hour “night” sample. *See* Dodd/Montz EC 1.2 Direct Testimony at 8-10; SNC Entrainment Study at 11.

4.78 The river source water was sampled at two locations, one about 300 feet upstream of the present intake for Units 1 and 2, and the other another 0.3 mile upstream at the location of the proposed intake for Units 3 and 4. Each sampling location included a center-channel station and stations about 30 feet from each shore. Paired 500-micron mesh size plankton nets were towed in the river current behind an anchored boat, starting near the river bottom and progressing every 5 to 10 minutes to the surface at 1-meter intervals. Relevant

²⁷In this context, Dr. Young also maintains that Staff reliance in its FEIS on the lack of American shad egg distribution in river oxbows was not relevant to the Staff’s impacts analysis, *see* Young EC 1.2 Direct Testimony at 8, but as the Staff notes, this was merely a way of emphasizing the point that, unlike some other species that tend to have greater egg/larval concentrations in oxbows, creeks, or intake canals that are off the main river channel, American shad spawning, and the eggs that result, stay in the main channel so as to be more likely to pass by the VEGP site, *see* Staff EC 1.2 Rebuttal Testimony at 17.

environmental conditions, such as river stage and temperature, were recorded for each sampling event. Egg and larvae densities were calculated from the sample counts and the amount of water filtered through the plankton net. Total water column sample time averaged about 20 minutes per station event, while the mean target sample volume for the background samples was approximately 100 cubic meters of water. *See* Dodd/Montz EC 1.2 Direct Testimony at 9; Coutant EC 1.2 Direct Testimony at 24-25; SNC Entrainment Study at 12-14, 17. No protected species were collected from the source water. *See* SNC Entrainment Study at 18.

4.79 The Vogtle Units 1 and 2 intake canal was also sampled March through July, essentially simultaneously with the river sampling. A pump collection system (water pumped from the canal was filtered through a plankton net) was needed there because the velocities in the canal were too low to permit use of the plankton nets. A total of thirty-six ichthyoplankton samples were collected during the study period. Comparison of pump and net collections taken simultaneously in the river indicated that both methods were comparable when viewed in terms of types and numbers of organisms caught per unit volume of water, although there were significantly fewer organisms in the canal water than in the river, and the taxa were different. *See* Dodd/Montz EC 1.2 Direct Testimony at 9; Coutant EC 1.2 Direct Testimony at 25; SNC Entrainment Study at 21. SNC utilized the data gathered during these sampling events, in conjunction with certain assumptions about the representative nature of the semi-monthly samples, *see* Dodd/Montz EC 1.2 Direct Testimony at 10-11, to calculate an annual entrainment rate that it ultimately declares shows the entrainment impacts of the new units are SMALL, *see* Coutant EC 1.2 Direct Testimony at 26. In this regard, as was pointed out in section IV.A.6.c, above, the SNC study projected that less than 1% of the drift population in the river would be entrained. *See* SNC Entrainment Study at 23 (comparing estimated daily entrainment rate of 1230 organisms with estimated daily source water drift abundance of 312,039 organisms). Moreover, no protected species were collected inside the intake canal. *See* SNC Entrainment Study at 21.

ii. ADEQUACY OF SNC ENTRAINMENT STUDY

4.80 Although Joint Intervenor apparently agree that the plankton net sampling method as utilized for river source water was an effective sampling technique, *see* Young EC 1.2 Direct Testimony at 8-9; Tr. at 851, 853, 867, they nonetheless challenge the SNC entrainment study on several other accounts. In their proposed reply findings, Joint Intervenor raise concerns about the timing (biweekly March-July 2008) and number (twenty) of sampling events relative to the purported “critically depleted baseline populations” of the shortnose sturgeon and robust redhorse populations, which they assert was inadequate to test the impacts of the closed cooling system on these two species so as to validate that these species were not entrained by the Vogtle Units 1 and 2 structure. *See*

Joint Intervenors Reply Findings at 6. In addition, although not raised in Joint Intervenors findings, *see supra* note 12, Dr. Young expresses concerns in his testimony, as he did relative to the SNC impingement study, about the entrainment study lacking 1 year of data, *see* Young EC 1.2 Rebuttal Testimony at 8, as well as contests its accuracy based on (1) a change in survey location from the mouth of the intake canal to the middle of the canal, which would result in undercounting of eggs that were withdrawn from the river and died, but were not counted because they never reached the middle of the canal; (2) the explanation provided by Mr. Dodd and Mr. Montz for not observing any eggs in the entrainment samples, which they attribute to “settling out” in the water column between the mouth of the intake canal and the head of the intake structure due to sediment catchment, but which Dr. Young asserts should have resulted in higher entrainment results because eggs of species like the American shad would likely die; and (3) the taking of significantly fewer samples at the site of the proposed Units 3 and 4 intake, thereby creating an unequal dataset. *See* Young EC 1.2 Rebuttal Testimony at 3-4.

4.81 Relative to the matter of the number and timing/duration of the entrainment sampling events, we are unable to agree with Joint Intervenors that these items are fatal to the efficacy of the survey in this context. The timing/duration matches the period in which an event critical to measuring the impacts of entrainment — the spawning and egg/larval drift season — occurs relative to the Savannah River aquatic community. *See* Dodd/Montz EC 1.2 Direct Testimony at 8. Nor do we find the disagreement over the number of sampling events to be of substance in this instance. As was the case with timing/duration, although the SNC testimony indicates what was done rested on a scientifically sound sampling basis, *see* Dodd/Montz EC 1.2 Rebuttal Testimony at 2-3; Coutant EC 1.2 Rebuttal Testimony at 5-6, Joint Intervenors would have preferred more. But the basis upon which they assert this is needed, i.e., the purported critically depleted population, is not one for which the evidentiary record provides support. *See supra* section IV.A.4.c.

4.82 On the matter of the study data not covering a year, as a practical matter, the purpose for which the 1-year collection guidance was established seems to have been fulfilled in this instance. As ESRP indicates, 1999 ESRP at 2.4.2-6, the 1-year sampling regimen is intended to ensure that the data “reflect[s] seasonal variations in aquatic populations.” While this makes perfect sense as a general matter, relative to entrainment impacts, the critical period is March through June, *see* Staff EC 1.2 Direct Testimony at 56, which, as we noted above, *see supra* section IV.A.6.d.i, is the period SNC targeted the study to encompass. Under the circumstances, we see no cause for refusing to consider this study on that basis alone.

4.83 With respect to the intake canal survey location change and egg sampling, it turns out these concerns have a common theme, as both depend on the

definition of what is an entrainment for the purpose of a NEPA impacts analysis. SNC witness Mr. Dodd explained that the location change after the first sampling session to move the sampling station closer to the cooling water system intake was done principally to account for the presence of eddies at the mouth of the intake canal that were perceived to be impacting the scientific/technical objectivity of the sampling in terms of it being representative of aquatic material that is actually entrained, i.e., that is subject to the plant's cooling system, as opposed to material that simply goes into the intake canal. *See* Tr. at 624-27. By the same token, the "settling out" explanation for the lack of eggs in the entrainment water samples, as compared with the abundance found in the study's source water samples, appears not to be an SNC concern because it does not consider such material to have been "entrained," given it would only be in the intake canal without being subjected to the cooling water system. *See* Tr. at 628-30. Dr. Young, however, has a different perspective, since he considers an assessable entrainment to be any egg mortality that arises as a result of leaving the source water flow and entering the intake canal, whether it occurs in the intake canal because of sediment catchment or because the egg actually enters the cooling water system. *See* Tr. at 838-42.

4.84 The SNC decision to move the sampling station to avoid the eddies' impact on the scientific validity of its survey was a determination based on sound technical judgment. At the same time, we think Dr. Young's point about consideration of intake canal "settled out" eggs as part of an entrainment impact assessment has some merit as an analytical matter, given the intake canal that can induce this effect is created, like the cooling system itself, to support Vogtle facility operation.

4.85 That being said, we nonetheless conclude, based on the record before us, that such a possible impact does not invalidate the Staff's NEPA assessment in this instance. Dr. Young's egg mortality concern was directed principally to the American shad, whose eggs he identified would suffer mortality in such a sediment catchment situation. *See* Tr. at 839. Given the fecundity of that species, *see* Tr. at 727-28, 735 (9.3 million American shad eggs would be produced in a year in the river that potentially could be drifting past the Vogtle facilities), and the demersal characteristics of American shad eggs that causes them to stay near the bottom, *see* FEIS 1A, at 2-82; Staff EC 1.2 Direct Testimony at 54; Exh. NRC000036, at 63 (McFarlane *et al.*, Impingement and Entrainment of Fishes at the Savannah River Plant (Feb. 1978)); Dodd/Montz EC 1.2 Rebuttal Testimony at 6, the SNC position attributing the lack of entrained shad eggs identified by the SNC study to the design characteristics of the intake canal, as opposed to preintake egg mortality caused by "settling out," has more persuasive support in the evidentiary record.

4.86 Finally, as to Dr. Young's criticism of the adequacy of the source water portion of the SNC entrainment survey as having taken fewer samples from the river near the location for the proposed Units 3 and 4 intake structure

(approximately 11%) than from the river near the current site of the Units 1 and 2 intake canal (approximately 89%), *see* SNC Entrainment Study at 18, under the circumstances here, as outlined in the record, in which the stretch of river bank in which this structure will reside is uniformly unremarkable in terms of features that might have a particular effect on the assessment of the egg/larval drift, *see* Staff EC 1.2 Rebuttal Testimony at 19 (site not located in biologically unique stretch of river), we find this concern without substance.

iii. ADEQUACY OF SNC HZI SURVEY

4.87 Although not challenged in Joint Intervenors proposed findings, *see supra* note 12, Dr. Young also raised questions in his prefiled testimony about the adequacy of the SNC HZI survey, which was conducted to provide a better understanding of the area of the river influenced by the withdrawal of water into the cooling system. *See* Dodd/Montz EC 1.2 Direct Testimony at 14. Specifically, Dr. Young asserted that this study lacked sufficient data and analysis because it was conducted while Units 1 and 2 were operating at 56% of capacity during a limited range of river flows, instead of at full capacity and during different flows to ensure differing water intakes were modeled (e.g., operation at 100% capacity will require more water withdrawal) thereby increasing the HZI and the accompanying increased intake velocities further into the river channel. *See* Young EC 1.2 Direct Testimony at 10; Young EC 1.2 Rebuttal Testimony at 4. Before assessing this concern, we provide a brief explanation of the survey methodology and its results.

(1) *Description of HZI Survey*

4.88 As a complement to SNC's 2008 impingement and entrainment surveys, on May 7, 2008, SNC personnel performed an HZI survey at the intake structure for Vogtle Units 1 and 2. The purpose of the survey was to measure the extent of the HZI by "measuring and recording deviations in the magnitude, direction, and velocity of river flow." Dodd/Montz EC 1.2 Direct Testimony at 14. The idea is to map-out what portion of the river is impacted or influenced by the flow of water into the intake canal. *See id.* at 15 (HZI boundary determined where water velocities and vectors are not influenced by VEGP intake structure).

4.89 SNC personnel used a boat-based Acoustic Doppler Current Profiler (ADCP) to collect river flow data. They navigated a boat parallel to the Savannah River shoreline, collecting information at eleven transects, which were established at 10-foot intervals beginning at the intake canal and extending into the Savannah River at mid-channel. When the measurements indicated that the water velocities and vectors were unrelated to the intake structure, the boundary of the HZI was established. *See id.* at 15.

4.90 During the survey, three intake pumps were operating, as compared to

the use of two intake pumps in typical operations, and the intake flow was 110 cfs.²⁸ The average flow of the river was 4482 cfs. The average flow of the river was measured both before and after the survey, with measured flows varying by less than 2%. *See id.* at 15.

4.91 Based on the measurements, SNC concluded that the HZI for Vogtle Units 1 and 2 “occupied an area of 1.10 acres, which includes the entire VEGP intake canal and a small portion of the Savannah River.” *Id.* at 15-16. The small portion of the Savannah River amounted to “a distance of approximately fifty feet from the mouth of the intake canal (or about 13 percent of the total distance across the river channel and proximal to the mouth of the canal).” *Id.* at 16; *see also* Attachment to May 27, 2008 Letter at 2, 4.

(2) *Adequacy of HZI Survey*

4.92 Relative to Dr. Young’s challenge to the HZI survey, as Mr. Dodd and Mr. Montz indicated, *see* Dodd/Montz EC 1.2 Rebuttal Testimony at 3-4, when the HZI determination was conducted at Plant Vogtle, Unit 1 was operating at 100% of its generating capacity, while Unit 2 was operating at 98.1% of its generating capacity, and the cooling water intake structure was operating in its normal pumping configuration. Of the four pumps that are available to the cooling water system, during normal operation (i.e., plant at full load) of the intake structure, one pump operates for each unit (two pumps total), a third pump operates intermittently as needed to adjust cooling tower basin water levels and for waste dilution, and a fourth pump is kept in standby should one of the other three pumps require maintenance. According to Messrs. Dodd and Montz, the 56% capacity to which Dr. Young referred was simply the ratio of the daily withdrawal rate reported by Plant Vogtle for Units 1 and 2 (71.24 million gallons per day (MGD)) for May 7, 2008, to the theoretical limit of all four pumps operating at full design capacity (127 MGD). Regardless of this figure, however, they maintained that on the day the HZI determination was conducted, the plant was operating three of the four cooling water intake pumps, which is the normal mode of operation at full power generation. Given this unrebutted testimony, the sufficiency and relevance of which the Staff fully supports, *see* Staff EC 1.2 Direct Testimony at 60-61; Staff EC 1.2 Rebuttal Testimony at 21, we see no basis for crediting Dr. Young’s concern in this regard.

²⁸This number represents 56% of the full capacity of the intake structure flow, but it is typical, slightly higher even, than flows during normal operations at Vogtle. *See* Dodd/Montz EC 1.2 Rebuttal Testimony at 4; Staff EC 1.2 Rebuttal Testimony at 21. The intake structure for Vogtle Units 1 and 2 is designed to take almost double the capacity of what is typically used. *See* Dodd/Montz EC 1.2 Rebuttal Testimony at 4; Staff EC 1.2 Rebuttal Testimony at 21; Attachment to May 27, 2008 Letter at 2.

4.93 Regarding Dr. Young's assertion that an insufficient range of flows was analyzed, Messrs. Dodd and Montz maintain that the HZI survey was conducted during a period of prolonged drought that was, at a minimum, representative of average river flows during 2008 under normal cooling water withdrawal rates. According to these SNC witnesses, Savannah River flows averaged 4482 cfs on the day the HZI determination was conducted, while for 2008, the average daily flow in the Savannah River at Plant Vogtle was approximately 4950 cfs, which can be contrasted with the average daily flow in the Savannah River from January 22, 2005, to December 31, 2008, which was 7173 cfs, or about 44.7% greater than the 2008 average flow. See Dodd/Montz EC 1.2 Rebuttal Testimony at 4 (citing USGS, <http://waterdata.usgs.gov/nwis/> and Exh. SNC000053 (Daily Average Discharge USGS021973269 Savannah River Near Waynesboro, Georgia) (calculation based on tables and charts reflecting daily average discharge at USGS gauge 021973269, on the Savannah River near Waynesboro, Georgia)). Given this un rebutted testimony, which the Staff again fully supported, see Staff EC 1.2 Direct Testimony at 60-61; Staff EC 1.2 Rebuttal Testimony at 21-22, as well as our discussion in section IV.A.4.b, above, regarding the adequacy of the SNC consideration of low-river flows as they impact its various surveys and which roughly correspond to the flow figures extant at the time of the HZI survey, we find no basis for Dr. Young's concerns about the adequacy of the HZI survey in this regard either.

4.94 Consequently, we conclude that the SNC HZI information further supports the FEIS determination that entrainment impacts will be small because only a relatively small portion of the river would be influenced by water withdrawals from the intake structure for the cooling water system.

iv. PROPRIETY OF STAFF USE OF UNIFORM DRIFT DISTRIBUTION (UDD) IN ASSESSING ENTRAINMENT IMPACTS

4.95 As another part of their challenge to the FEIS entrainment assessment, albeit not as part of their proposed findings, see *supra* note 12, Joint Intervenors contested the Staff's assumption in the FEIS that the drift community near the VEGP site is uniformly distributed, which assumption the Staff indicated was based on its review of the 1985 FES for Vogtle Units 1 and 2 that concluded, using a uniform drift distribution (UDD) assumption, that those units would have an insignificant entrainment impact on drift organisms. See Young EC 1.2 Direct Testimony at 6-7 (citing FEIS 1B, at 5-31). For the reasons outlined below we find that the use of this analytical tool in the entrainment analysis for proposed Vogtle Units 3 and 4 was reasonable.

(1) UDD Defined

4.96 Field surveys of drifting aquatic organisms generally show that the

distribution of organisms is spatially and temporally variable. *See* Coutant EC 1.2 Direct Testimony at 43, Young EC 1.2 Direct Testimony at 7. The UDD is a simplifying assumption under which an analyst takes a high-end estimate of the number of organisms in the free-floating drift community in a water sample, which includes entrainable life stages such as eggs and larvae, and assumes that estimate to be the density of organisms in any given sample. *See* Coutant EC 1.2 Direct Testimony at 41-43. Thus, drift organisms are assumed to be evenly spread out throughout the water column “such that any x% of the water will contain x% of the drift community within it,” and “the drift from all species would be entrained equally.” Moorer EC 1.2 Direct Testimony at 9.

(2) *Adequacy of Staff Data/Analysis Supporting Employing UDD*

4.97 Joint Intervenor witness Dr. Young challenges the Staff’s use of the UDD on the basis that drift distributions in general and the drift distribution in the Savannah River in particular are, in fact, nonuniform. *See* Young EC 1.2 Direct Testimony at 7; Tr. at 842-43. We agree with SNC and the Staff, however, that the UDD was appropriate for estimating entrainment impacts at the VEGP site because it is both commonly used and conservative. *See* SNC Proposed Findings at 33-34; Staff Proposed Findings at 38-39.

4.98 In support of the position that UDD is a commonly used assumption, Staff witnesses noted that both relevant EPA regulations and the original FES associated with the Vogtle Units 1 and 2 10 C.F.R. Part 50 operating license also assume a UDD. *See* Staff EC 1.2 Direct Testimony at 53, 55-56. Further, SNC witness Dr. Coutant noted that in the NEPA analysis context, the details of distribution only become important if a MODERATE or LARGE impact is predicted using the UDD. *See* Coutant EC 1.2 Direct Testimony at 41. For their part, Joint Intervenor presented no evidence of any instance in which a more in-depth distribution analysis was being used where only a SMALL impact was predicted.

4.99 SNC and Staff witnesses also presented evidence showing that the UDD is a conservative assumption for estimating entrainment impacts at the VEGP site. First, some species spawn in nests so that their eggs do not regularly enter the drift community. *See* Tr. at 667-68. Second, the eggs and larvae of some fish species, including sturgeon, tend to sink to the bottom of the water column, and SRS studies showed that egg concentrations are generally higher near the bottom of the river. *See* Staff EC 1.2 Direct Testimony at 53-54; Tr. at 668-69. Because the proposed intake structure for Vogtle Units 3 and 4 includes a weir wall and skimmer wall that would result in water from the middle of the water column preferentially entering the intake canal, the entrainment impact on species at the top or bottom of the water column would tend to be lower than the impact predicted using the UDD. *See* Staff EC 1.2 Direct Testimony at 53-54; Coutant

EC 1.2 Direct Testimony at 45-46. Finally, the results of SNC's 2008 entrainment study show that organism density was in fact much lower in the Vogtle Units 1 and 2 intake canal than in the source water. *See* Coutant EC 1.2 Direct Testimony at 43. Joint Intervenors again produced no evidence to rebut this argument that the UDD results in conservative entrainment estimates.

4.100 We thus conclude that the use of the UDD in the analysis of entrainment impacts for proposed Vogtle Units 3 and 4 was appropriate.

7. *Thermal Impacts*

4.101 We next turn to the portion of this contention under which Joint Intervenors have questioned the adequacy of the Staff's assessment of the impacts of thermal emissions from proposed Vogtle Units 3 and 4. As was noted earlier, *see supra* section IV.A.2, as is the case with existing Units 1 and 2, as part of their cooling water system, cooling tower blowdown from the Vogtle Units 3 and 4 would be discharged back into the Savannah River through an outlet common to both new units. The discharge outfall for the new facilities would lie some 400 feet downstream from the outfall for the existing facilities, also on the western (Georgia) bank of the river. The heated blowdown water would enter the river from a single submerged pipe 3 feet from the river bottom angled 70 degrees from the shoreline (albeit pointing toward the center of the channel) and slightly downstream. The GDNR has classified the Savannah River at the VEGP site for fishing water use, so that the water quality standards for temperature are twofold: (1) the heated blowdown is not to exceed 90 degrees Fahrenheit (°F); and (2) at no time is the temperature of the river water receiving the heated blowdown to be increased by more than 5°F above the intake temperature after allowing for a reasonable and limited mixing zone that would not create an objectionable or damaging pollution condition. This defines two mixing zones, the first being a zone that exceeds 5°F and the second being a zone that exceeds 90°F. *See* FEIS 1A, at 2-43; FEIS 1B, at 5-17 to -19; Staff EC 1.2 Direct Testimony at 85.

a. *RG/ESRP Guidance*

4.102 ESRP guidance regarding the cumulative impact analysis for aquatic resources from discharge of heated cooling water associated with nuclear unit operation indicates that the NRC Staff's review should include "the analysis of alterations to the receiving water body resulting from plant thermal . . . discharges in sufficient detail to predict and determine the nature and extent of potential impacts on aquatic ecosystems." 1999 ESRP at 5.3.2.2-1. The ESRP also states that "the staff's analysis may be provided by referencing the aquatic biota

descriptions of ESRP 2.4.2 and describing in brief detail the effects on biota that are ‘important’ and susceptible to thermal . . . impact.’ *Id.* at 5.3.2.2-10.

b. Adequacy of Plume Assessment

4.103 According to the Staff, its conclusions regarding thermal impacts were based on the discharge temperature, the size of the plume that emerges from the discharge pipe, the design and the location of the discharge structure, and the width of the river at the location of the VEGP site. *See* Staff EC 1.2 Direct Testimony at 84. The central focus of the Staff’s thermal impacts assessment is the interaction between the heated water in the discharge plume and the aquatic species in the river. Of particular import in this regard is the size and shape of the thermal plume that will be created when the blowdown discharge enters the river and creates a mixing zone in which the cooler river water absorbs the heat from the blowdown. Within the mixing zone or plume, the water temperature may exceed the ambient river temperature by more than 5°F. *See* FEIS 1A, at 2-43; FEIS 1B, at 5-17. The size of the plume thus is defined as that region where the temperature of the mixture exceeds the ambient river temperature by more than 5°F. *See* FEIS 1B, 5-33.

4.104 To determine the extent of this plume, the Staff utilized the CORMIX numerical model, an EPA-supported standard computer code for determining regulatory mixing zones from continuous point source discharges, such as are involved for the Vogtle units. Further, to ensure conservatism in this calculation, the Staff used a series of inputs designed to maximize the size of the thermal plume, i.e., Drought Level 3 low river discharge (3800 cfs); largest outfall discharge (both Units 1 and 2 and Units 3 and 4 blowdown from the same pipe at 90.5 cfs); and lowest ambient stream temperature (41°F), so as to provide the largest temperature difference between the temperature coming out of the blowdown discharge pipe and the river water. The resulting CORMIX-calculated plume, with a length of 97 feet and a width of 15 feet, would, after leaving the discharge pipe, be oriented roughly parallel to the river bank as the plume curves downstream with the river flow. *See* Staff EC 1.2 Direct Testimony at 85; FEIS 1B, at 5-18 to -19, 5-33.

4.105 In addition, the Staff evaluated the extent of the mixing zone of the 90°F isotherm, which is only 1°F below the maximum effluent discharge temperature. The same assumptions were made for this analysis except that the maximum rather than the minimum measured ambient river temperature at Shell Bluff Landing (81°F) was used to maximize the size of the mixing zone. The results generated by CORMIX indicated that the maximum downstream extent of the 90°F isotherm would occur at a distance of 0.9 meter (m) (3 feet (ft)) downstream of the outfall pipe. Because of the proximity of the 90°F isotherm to the pipe terminus, the plume had not yet been significantly influenced by the river

flow rate, and the lateral extent of the isotherm was greater than the downstream extent. The maximum lateral extent of the 90°F isotherm from the outfall pipe terminus toward the river centerline was 2.21 m (7 ft). *See* FEIS 1B, at 5-18, 5-19.

4.106 The Staff also made an assessment of the larger 5°F isotherm zone using very-low-flow conditions, which would tend to increase the “above 5°F of ambient” mixing zone. With the caveat that it considered each very-low-flow scenario an extremely rare, short-duration event that would be most unlikely during the spring and early summer spawning periods when there is considerable up and down river traffic of organisms, the Staff calculated the plumes for river flows of 3000 cfs and 2000 cfs. In the latter instance, the result was a plume with approximately double the areal extent. *See* Staff EC 1.2 Direct Testimony at 87-88.

4.107 In both instances, however, the Staff concluded that the impacts of the thermal plume on aquatic resources would be SMALL. Given that the river is 312 feet wide at the discharge point, the Staff concluded that the 5°F isotherm would occupy between 5% and 10% percent of the river cross section, thereby avoiding any thermal blockage that would impede the movement of fish or otherwise prevent them from acting on their natural instinct to avoid unhealthy waters. Nor did the Staff consider “cold shock” a factor of concern. This condition, which occurs when an otherwise warm body of water cools suddenly because a heat source, such as the reactor blowdown from Units 3 and 4, is abruptly curtailed, would not be a major concern, according to the Staff, in light of the small size of the plume and the likelihood of the continued operation of Units 1 and 2. So too, the Staff found no significant impact for eggs/larvae floating in the water given they would only be a small percentage of the total number of organisms passing through the site and given the small size of the plume, which the Staff asserted some could transit without being impacted. Finally, relative to the low-flow and very-low-flow conditions,²⁹ the Staff again noted that Georgia state environmental authorities could intercede to curtail or halt facility operation if the situation warranted. *See id.* at 86-88.

4.108 In addition to the Staff’s CORMIX plume size analysis, SNC provided for the record an additional plume analysis generated by mapping the physical size and temperature characteristics of the VEGP thermal discharge plume under what it asserted were typical cooling tower operations with Units 1 and 2 in operation during a period of stable river flow/stage conditions. As described in the testimony of SNC witnesses Dodd and Montz, the inputs from on-the-water surveys conducted using an ADCP, which provides broadband acoustic echo information, and

²⁹Also in connection with these low-flow scenarios, the Staff assessed the impact of the AP1000 DCD revision 16 change on the maximum withdrawal figures used to compute consumptive use rates and found that these changes would have no impact on blowdown flow rates or any thermal impacts assessment. *See* Staff EC 1.2 Direct Testimony at 91.

a Hydrolab Surveyor, which is a multiarray water quality analyzer instrument that records water temperature, were electronically synthesized with a 3-D computer model to illustrate graphically the spatial effects of the hydraulics and temperature characteristics of the Units 1 and 2 thermal plume. The data indicated that the thermal discharge plume occupied a small zone (approximately 100 feet long by 75 feet wide) located immediately downstream of the discharge pipe/outfall. *See* Dodd/Montz EC 1.2 Direct Testimony; *see also* Exh. SNC000011, at unnumbered pages 1-4 (Images from Thermal Study depicting river water temperature).

4.109 Although again not the subject of Joint Intervenors proposed legal and factual findings, *see supra* note 12, some aspects of the Staff's thermal impacts assessment were challenged in Dr. Young's prefiled testimony. Initially, he questions whether the plume modeling was adequate given the possibility of lower river flows, which would increase the chance of channel confinement and concomitant vulnerability to thermal stress and mortality. He also challenges the purported failure of the FEIS to consider "all possible river conditions" by focusing on conservative conditions and asserts there is a general lack of analysis of potential thermal impacts on vulnerable aquatic creatures' life history stages, and a particular lack of analysis of the impact of elevated temperatures on the earlier life stages of such species as the American shad, blueback herring, shortnose sturgeon, and striped bass. Along these same lines, he contests the sufficiency of the SNC plume study as not accounting for ichthyoplankton drift distribution in the plume and not including additional seasons other than summer. *See* Young EC 1.2 Direct Testimony at 10-12; Young EC 1.2 Rebuttal Testimony at 4.

4.110 We are unable to agree that Dr. Young's claims outweigh the showing of the Staff and SNC, as supported in the record, relative to the adequacy of the Staff's thermal impacts findings of SMALL. While it is true that the very low-flow conditions about which Dr. Young expresses a concern will expand the warm water plume somewhat, it does not appear that, even if doubled, its size and orientation would result in the sort of thermal barrier that would not allow fish to avoid waters they might find unhealthy. By the same token, the interaction between such a plume and fish eggs/larvae,³⁰ while causing some losses, is not likely to have a substantial impact on the relevant ecosystem. Assuming they would come into contact with the plume area,³¹ some demersal (i.e., sinking) or

³⁰Dr. Young's suggestion to the contrary notwithstanding, *see* Young EC 1.2 Rebuttal Testimony at 5, because ichthyoplankton drift tends to be concentrated in the spring and early summer time frame, *see* Coutant EC 1.2 Direct Testimony at 37; Coutant EC 1.2 Rebuttal Testimony at 11, we consider the likelihood of eggs/larvae encountering a very-low-flow enlarged plume to be low as well.

³¹For instance, the degree to which eggs/larvae of the shortnose sturgeon or the striped bass even come in the vicinity of the VEGP site is not readily apparent. *See* Coutant EC 1.2 Rebuttal Testimony at 10.

semi-pelagic (staying in the water column to some extent) eggs/larvae, such as the eggs of the American shad, may very well drift under the more buoyant plume area, while others, such as those of the shortnose sturgeon and striped bass will not be affected because the water temperature of the river and the plume are, at the time of spawning and egg drift in the spring and early summer, not likely to be in the fatal range. *See* FEIS 1A, at 2-82; Staff EC 1.2 Direct Testimony at 54; Dodd/Montz EC 1.2 Rebuttal Testimony at 5-6; Coutant EC 1.2 Rebuttal Testimony at 8-10. Moreover, for those eggs/larvae moving through the plume at a time when the temperature differential might be unhealthy, by reason of the average stream velocity of 1.5 fps, they are likely to spend less than 2 minutes in the plume, a period during which eggs/larvae of a species like the blueback herring and striped bass should not be permanently harmed. *See* Dodd/Montz EC 1.2 Rebuttal Testimony at 5; Coutant EC 1.2 Rebuttal Testimony at 9-10. These points also address the asserted need for additional analysis relative to particular life histories and for the SNC study to extend to additional seasons other than spring for fish. *See* Staff EC 1.2 Rebuttal Testimony at 41-43. Thus, we find that the record before us supports the Staff's conclusion that the thermal impacts associated with proposed Vogtle Units 3 and 4, both alone and in concert with existing Units 1 and 2, will be SMALL.

8. Adequacy of Cumulative Impacts Analysis

4.111 Finally, in their proposed findings, Joint Intervenors contend that the Staff failed to assess adequately the cumulative impacts of Vogtle Units 3 and 4 to the extent it has not assessed or has downplayed the present effects of past actions that have depleted the baseline population of "important species" to the point they are threatened with extinction. According to Joint Intervenors, by asserting that the impacts of proposed Vogtle Units 3 and 4 will be small because the impacts of existing Vogtle Units 1 and 2 have been small, the Staff has failed to account for the possibility that individually minor but collectively significant actions are taking place over a period of time. *See* Joint Intervenors Proposed Findings at 21; Joint Intervenors Reply Findings at 4. In addition, Joint Intervenors maintain, the Staff's reliance on the purported small impacts of a closed-cycle cooling system, as opposed to a once-through cooling system, in the face of SNC testimony identifying three once-through cooling system power stations operating on the Savannah River, makes it likely these three facilities have significant adverse impacts on aquatic species that are totally ignored by the FEIS. *See* Joint Intervenors Reply Findings at 4-5.

4.112 These claims are essentially a reframing of Joint Intervenors arguments regarding the "low baseline" and "special species" status of certain aquatic creatures, which now seeks to emphasize the possibility that, notwithstanding the Staff's findings of minor impacts relative to impingement and entrainment, which

we have concluded are supported by the preponderance of the evidence here, those impacts might be “‘the straw that breaks the back of the environmental camel,’” Joint Intervenor’s Revised Response Statement and Pre-Filed Rebuttal Testimony (March 2, 2009) at 15 (quoting *Hanly v. Kleindienst*, 471 F.2d 823, 831 (2d Cir. 1972)), such that the proposed VEGP facility, despite its low impacts, must be shelved until, presumably, other facilities currently operating along the river have decreased their impacts to the point that this project no longer would retain its “back-breaking” characteristics.

4.113 Putting aside the issue of whether, as Joint Intervenor’s now use the term “cumulative,” these assertions are within the scope of this contention,³² in assessing this challenge we think it worth noting that the existing nature of the environment here is not without significance. Joint Intervenor’s have cited the majority opinion of the United States Court of Appeals for the Second Circuit in *Hanley v. Kleindienst* for the proposition that an EIS must be attuned to the “camel’s back” problem. In that opinion, however, the majority also noted that

[w]here conduct conforms to existing uses, its adverse consequences will usually be less significant than when it represents a radical change. Absent some showing that an entire neighborhood is in the process of redevelopment, its existing environment, though frequently below an ideal standard, represents a norm that cannot be ignored. For instance, one more highway in an area honeycombed with roads usually has less of an adverse impact than if it were constructed through a roadless public park.

³² Not every impact to which Joint Intervenor’s might seek to attach that label is necessarily within the contention’s scope. In admitting this contention we found Joint Intervenor’s had provided sufficient supporting information, in the form of an affidavit from Dr. Young, to support consideration under this contention of “asserted deficiencies concerning the ER impact discussion regarding the intake/discharge structure for the two new proposed facilities — impingement/entrainment, . . . and thermal discharges, including cumulative impacts from these items associated with the existing Vogtle facilities.” LBP-07-3, 65 NRC at 258. As this language denotes, per the supporting material provided by Joint Intervenor’s, *see* Intervention Petition at 12-13 (ER does not adequately address the cumulative impacts on aquatic resources of the new cooling system facilities, combined with the current impacts of the existing intake and discharge); *id.* Exh. 1.3, at 3 (“An additional two units, especially in conjunction with operation of existing units, have the potential for large cumulative impacts on the Savannah River fish assemblage”) (Declaration of Shawn Paul Young, Ph.D), the cumulative impacts we found subject to consideration under this contention were those associated with the cumulative effects of the existing and proposed Vogtle facilities.

So too, in ruling on the SNC summary disposition request relative to EC 1.2, in connection with Joint Intervenor arguments that material factual disputes existed relative to the effect of river flow levels on impingement and entrainment impacts because the then-DEIS did not include a discussion of the cumulative impacts of water withdrawals from various facilities upstream of the VEGP facility, including the D-Area powerhouse, Urquhart Station, the Augusta Channel, the Augusta International Paper Mill, and the City of Augusta, the Board declined to permit further litigation on this aspect of the river flow issue as outside the scope of the contention. *See* LBP-08-2, 67 NRC at 77-78.

Hanley, 471 F.2d at 831. Thus the fact that, as the Staff recognized in the FEIS, *see* FEIS 1A, at 2-33, there are various existing facilities making withdrawals from the river does not, under the NEPA rule of reason, automatically compel an extensive analysis of how each facility withdrawing water upstream of the proposed Vogtle Units 3 and 4 interacts with the Savannah River environment.

4.114 Even more specifically, however, on the basis of the record before us, it appears Joint Intervenors seek to have us make a finding that is the environmental impact equivalent of the whole being more than the sum of its parts. Notwithstanding the ongoing river water withdrawals of the various facilities about which Joint Intervenors have expressed a concern, and which the Staff recognized in its cumulative impacts analysis, *see* FEIS 1B, at 7-21, as we noted in section IV.A.4.c, above, the record does not support their assertion that some kind of special species/low baseline designation is appropriate here relative to any of the aquatic species at issue, including those considered rare.³³ Moreover, even with these various facilities operating, as a general matter the prospectus for the large river population associated with recreational fishing indicates that

³³ Nor, on the record before us, are we able to agree with Joint Intervenors apparent suggestion that SRS impingement and entrainment impacts were, and continue to be, a primary source of very significant negative impacts for the Savannah River environs at issue here so that the SRS facility, in combination with the existing VEGP facility and the additional “straw” afforded by the proposed new units, will result in serious environmental damage. Although likewise not pursued in Joint Intervenors proposed findings, *see supra* note 12, in his testimony Dr. Young takes issue with statements in the record by SNC witness Mr. Moorer regarding the adequacy of the SRS studies as they concluded that, despite the SRS facility’s large once-through cooling intake flows, impacts from entrainment (and impingement) were small and did not result in quantifiable fishery or aquatic community impacts. *See* Young EC 1.2 Rebuttal Testimony at 2; *see also id.* at 4 (challenging Dr. Coutant statement about lack of link between nuclear facilities on Savannah River and negative impacts on river fisheries). As the discussion on this point during the evidentiary hearing indicates, *see* Tr. at 898-902, the conclusions Dr. Young appears to draw from the language of an exhibit co-authored by one of the scientists who was also involved in the SRS studies about the significant extent of the negative impacts on the fish population from entrainment from the SRS and Vogtle facilities do not seem wholly consistent with the statements in the exhibit so as to provide sufficient support for Dr. Young’s assertion. The exhibit provides in pertinent part:

Historically, the largest sources of entrainment in the MSRB have been the reactor cooling water intakes for the SRS (9.8% of Savannah River flow) and the Plant Vogtle nuclear power station (4.2% of river flow; Wiltz 1981; DOE 1990).

SAVANNAH RIVER SITE Historically, the SRS has affected populations of commercially and recreationally important fish species in the river primarily through impingement and entrainment losses of fish eggs, larvae, and adults during intake of cooling water (McFarlane et al. 1978). The overall rates of impingement at the SRS intakes were low relative to those of other cooling-water intake facilities in the Southeast (DOE 1988). Cessation of reactor operations and the concomitant lack of need for cooling water withdrawals from the Savannah River reduced entrainment impacts substantially.

Marcy Savannah River Fishes at 16.

population is relatively healthy, *see* Exh. SNC000097, at unnumbered pages 1-2 (2009 Fishing Prospects for the Savannah River, <http://www.gofishgeorgia.com/>); *see also* Tr. at 934 (Dr. Young states that prospectus at [gofishgeorgia.com](http://www.gofishgeorgia.com/), which is “looking good,” is indicator of species rebounding from earlier declines).

4.115 Thus, whether viewed in terms of rare or populous species, we are unable to find on this record that there has been “a stone left unturned” such that the NEPA cumulative impacts analysis in this instance is deficient in assessing whether the proposed new units will provide the proverbial “straw” about which Joint Intervenors are concerned.

9. Summary of Findings Regarding Contention EC 1.2

4.116 Although Joint Intervenors have provided a variety of challenges to the Staff’s FEIS findings regarding impingement/entrainment/thermal impacts for Vogtle Units 3 and 4, ultimately we find them unavailing. The preponderance of the evidence does not support their assertion that the Staff’s reliance upon existing information regarding the much-studied Middle Savannah River Basin was inadequate and required, instead, an extensive site-specific study. Nor do we find their overarching concerns about the adequacy of the river flow data used by the Staff in making its impingement/entrainment/thermal impacts assessment in light of the recent drought conditions to be supported by the record, particularly given their strong reliance upon very-low-flow conditions that are unlikely to occur or be of any extended duration. So too, their assertion that otherwise protected species should be given an additional designation as “special status species” is untoward and unsupported as a legal or factual matter. Also lacking support in the face of the extensive record provided by the Staff and SNC are their challenges to the Staff’s finding of a SMALL impact relative to impingement/entrainment/thermal discharge impacts, particularly in light of the recent SNC studies that have provided significant data on each of these subjects that fully support the Staff’s impact analysis and conclusions. Finally, we see no basis for a ruling in Joint Intervenors favor on the question of the adequacy of the Staff’s analysis of the cumulative impacts associated with impingement/entrainment/thermal discharge given that Joint Intervenors concerns rest in large measure upon a view of the ecological health of the Savannah River that fails to account for or recognize that cooling water needs of the former SRS production reactors, albeit substantial, have not been a factor impacting the river for a number of years.

4.117 As such, a judgment on the merits regarding contention EC 1.2 is entered in favor of the Staff and SNC.

B. Contention EC 1.3

1. Witnesses and Evidence Presented

4.118 SNC, the Staff, and Joint Intervenors each presented witnesses in connection with EC 1.3 during the March 2009 evidentiary hearing in support of their respective positions on the adequacy of the FEIS discussion and analysis of the alternative of implementing a dry cooling system for proposed Vogtle Units 3 and 4. Each of these witnesses presented written direct and/or rebuttal testimony, with supporting exhibits, and gave oral testimony at the evidentiary hearing. *See* Tr. at 947-1284; Coutant EC 1.3 Direct Testimony; Testimony of James W. Cuchens on Behalf of [SNC] Concerning [EC] 1.3 (fol. Tr. at 955) [hereinafter Cuchens EC 1.3 Direct Testimony]; Rebuttal Testimony of James W. Cuchens on Behalf of [SNC] Concerning [EC] 1.3 (fol. Tr. at 957) [hereinafter Cuchens EC 1.3 Rebuttal Testimony]; Testimony of Thomas C. Moorer on Behalf of [SNC] Concerning [EC] 1.3 (fol. Tr. at 966) [hereinafter Moorer EC 1.3 Direct Testimony]; Rebuttal Testimony of Charles R. Pierce on Behalf of [SNC] Concerning [EC] 1.3 (fol. Tr. at 971) [hereinafter Pierce EC 1.3 Rebuttal Testimony]; Staff EC 1.3 Direct Testimony; NRC Staff Rebuttal Testimony of Lance W. Vail Concerning [EC] 1.3 (fol. Tr. at 1064) [hereinafter Staff EC 1.3 Rebuttal Testimony]; Revised Prefiled Direct Testimony of William Powers in Support of EC 1.3 (fol. Tr. at 1096) [hereinafter Powers EC 1.3 Direct Testimony]; Revised Prefiled Rebuttal Testimony of William Powers Concerning [EC] 1.3 (fol. Tr. at 1098) [hereinafter Powers EC 1.3 Rebuttal Testimony]; Revised Prefiled Direct Testimony of Barry W. Sulkin in Support of EC 1.3 (fol. Tr. at 1100) [hereinafter Sulkin EC 1.3 Direct Testimony]; Pre-filed Rebuttal Testimony of Shawn P. Young Concerning [EC] 1.3 (fol. Tr. at 1102) [hereinafter Young EC 1.3 Rebuttal Testimony].

a. SNC

4.119 SNC presented four witnesses regarding EC 1.3: (1) Dr. Charles C. Coutant, a private consultant to SNC on aquatic ecology and fisheries biology matters; (2) James W. Cuchens, Principal Engineer, Southern Company Generation Engineering and Construction Services; (3) Thomas C. Moorer, SNC Project Manager-Environmental; and (4) Charles R. Pierce, SNC Licensing Manager. *See* Tr. at 947-1060, 1199-1285.

4.120 Mr. Cuchens, who has a Bachelor of Science in Mechanical Engineering from Mississippi State University, holds professional engineering licenses in four states. He has 35 years of engineering experience with Southern Company and has been involved in all phases of power plant design and construction, including the design of various types of cooling cycles, including closed loop, once-through, and/or cooling ponds serving nuclear, fossil fuel, and cogeneration

units. Mr. Cuchens specifically studied the feasibility of dry cooling technology for proposed Vogtle Units 3 and 4. *See* Cuchens EC 1.3 Direct Testimony at 1-3; Exh. SNC000023 (James W. Cuchens CV).

4.121 Mr. Pierce has a Bachelor of Science and a Master of Science in Mechanical Engineering from Mississippi State University. An SNC engineer for 28 years, Mr. Pierce has managed license renewal projects for nuclear facilities and was involved in the development and licensing of the Westinghouse AP1000 standard design. *See* Pierce EC 1.3 Rebuttal Testimony at 1-2; Exh. SNC000058 (CV of Charles R. Pierce).

4.122 The qualifications of Dr. Coutant and Mr. Moorer have been previously discussed by the Board above in connection with its ruling on contention EC 1.2 regarding impingement/entrainment/thermal impacts on aquatic resources. *See supra* section IV.A.1.a.

b. Staff

4.123 The Staff presented four witnesses in support of its position regarding EC 1.3: (1) Dr. Michael T. Masnik, Senior Aquatic Biologist, DSER/NRO/NRC; (2) Rebekah H. Krieg, Senior Research Scientist, Ecology Group, ESD/EED/PNNL; (3) Dr. Christopher B. Cook, Senior Hydrologist, DSER/NRO/NRC; and (4) Lance W. Vail, Senior Research Engineer in the Hydrology Group, ESD/EED/PNNL. *See* Tr. at 1060-84.

4.124 The qualifications of all four of these witnesses have been previously discussed by the Board above in connection with its ruling on contention EC 1.2 regarding impingement/entrainment/thermal impacts on aquatic resources. *See supra* section IV.A.1.b.

c. Joint Intervenors

4.125 With respect to EC 1.3, Joint Intervenors provided the testimony of three witnesses: (1) William Powers, principal of Powers Engineering; (2) Barry W. Sulkin, a private consultant to Joint Intervenors on water-related environmental matters; and (3) Dr. Shawn P. Young, Research Faculty of Fisheries Biology at the University of Idaho Moscow, Idaho, and a member of the Adjunct Faculty at Clemson University. *See* Tr. at 1084-1194, 1199-1285.

4.126 Mr. Powers has a Bachelor of Science in Mechanical Engineering from Duke University and a Master of Public Health in Environmental Sciences from the University of North Carolina and is a registered professional engineer in the state of California. He has over 25 years of experience serving as a lead engineer and project manager for power generation, permitting, technical assessments, and emissions control projects. He has also published and presented on the subject of

air cooling of power plants. *See* Powers EC 1.3 Direct Testimony at 1-3; Exh. JTIR00044 (Bill Powers, P.E., CV).

4.127 The qualifications of Mr. Sulkin and Dr. Young have been previously discussed by the Board above in connection with its ruling on contention EC 1.2 regarding impingement/entrainment/thermal impacts on aquatic resources. *See supra* section IV.A.1.c.

4.128 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 relative to the subject of the analysis of dry cooling as an alternative to the proposed Vogtle Units 3 and 4 closed-cycle wet cooling system.

2. Dry Cooling System

4.129 In section IV.A.2, above, we described in general the way in which the closed-cycle wet cooling system for the proposed Vogtle Units 3 and 4 would operate. More specifically, in a closed-cycle wet cooling system, the steam leaving the turbine is condensed using a steam surface condenser. This is a large heat exchanger filled with tubes that have cold water flowing through them. The cold water in the tubes absorbs the heat from the steam, causing the steam to condense back into liquid form for recirculation in the steam generator. *See* Cuchens EC 1.3 Direct Testimony at 3-4; Exh. SNCR00024, at 3-4 (Jim Cuchens, Feasibility of Air-Cooled Condenser Cooling System for the Standardized AP1000 Nuclear Plant (Jan. 9, 2009)) [hereinafter SNC Air-Cooled Feasibility Study]. At the same time, the now-heated water in the condenser tubes is pumped to a cooling tower, where it discharges its heat to the atmosphere largely through evaporation. *See id.* The cooling tower can be either mechanical draft, which uses fans to force air through the tower to cool the water, or natural draft, which uses the physical properties of warm and cold air to create a natural flow of air through the tower, much like the effect of the chimney on a fireplace. *See* SNC Air-Cooled Feasibility Study at 7. The remaining cool water is then collected and pumped back through the condenser tubes in the steam surface condenser. *See id.* at 4.

4.130 This can be contrasted with an alternative facility cooling system, i.e., a dry system that uses air instead of water as the main heat transfer medium for the steam coming out of the turbine. With an air-cooled condensing (ACC) system, the steam leaving the turbine is piped through large ducts outside of the turbine building to an ACC, where it is condensed into water inside large, metal-finned tubes that have air flowing across their outside surface. While the heat is thus rejected directly to the atmosphere, the water is drained into a large tank from which it is pumped back into the plant to again create steam. *See* SNC Air-Cooled Feasibility Study at 3, 12. An ACC, somewhat like a wet system with

a mechanical draft cooling tower, uses fans to force air across the finned tubes to achieve optimum heat transfer, *see* SNC Air-Cooled Feasibility Study at 12.

4.131 Another dry cooling system alternative is indirect dry cooling, of which two examples, the HELLER system, *see* Exh. JTIR00038 (Andras Balogh & Zoltan Szabo, The Advanced HELLER System Technical Features & Characteristics (June 2005)) [hereinafter Heller System Features], and the cooling towers at the Kendal plant in South Africa, *see* Exh. SNC000098, at 2 (J.W. Cuchens, Kogan Creek Project Dry Cooling Technology Investigation Final Report (May 1999) [hereinafter Kogan Creek Investigation], were described in this proceeding. In both designs, steam leaving the turbine is condensed using cooling water (or a glycol solution, *see* Tr. at 1241) in a condenser and not cooled directly by air, *see* Heller System Features at 3; Kogan Creek Investigation at 2. The cooling water is then pumped to a cooling tower and cooled using air flowing over finned tube bundles in the tower. *See* Heller System Features at 3; Kogan Creek Investigation at 2. The Kendal plant uses a natural draft cooling tower, while the HELLER system can use either a natural or a mechanical draft tower. *See* Heller System Features at 7-8; Kogan Creek Investigation at 2. Indirect dry cooling systems with natural draft air cooling towers have smaller parasitic loads (i.e., the energy expenditure required to run the cooling system) than a direct dry cooling system. *See* Tr. at 1232-33.

4.132 The focus of this contention is the extent to which a dry cooling system is an appropriate alternative to the wet cooling system proposed for Vogtle Units 3 and 4.

3. FEIS Discussion Relative to Contention EC 1.3

4.133 The EC 1.3-related discussion in the Vogtle FEIS relative to a dry cooling system as an alternative to a wet cooling system is found in section 9.3 (System Design Alternatives). There the Staff noted that although the use of dry cooling would eliminate aquatic impingement/entrainment/thermal impacts, this alternative system had significant disadvantages. Citing an EPA rulemaking (which also was a significant factor in our admission of this contention, *see* section IV.B.5.a, below) that considered, among other things, whether to adopt dry cooling as the best technology available for minimizing adverse environmental impacts, the Staff concluded that dry cooling involved additional expenses that made it less cost-effective. *See* FEIS 1B, at 9-26 (citing National Pollutant Discharge Elimination System: Regulations Addressing Cooling Water Intake Structures for New Facilities, 66 Fed. Reg. 65,256 (Dec. 18, 2001)). Also, according to the Staff, because of the increased power usage to move large amounts of air through a heat exchanger, dry cooling would involve higher fuel use and spent fuel transportation and storage impacts along with elevated noise levels and increased land use impacts associated with an ACC. *See id.* at 9-26

to -27. These disadvantages, when considered in conjunction with the Staff's conclusion that the aquatic impacts of the proposed wet cooling system would be SMALL, led the Staff to conclude that a dry cooling system would not be preferable to the wet cooling system being proposed for Vogtle Units 3 and 4.

4. NRC Regulations and Regulatory Guidance

4.134 Contention EC 1.3 as initially admitted challenged the SNC ER as failing to adequately address the dry cooling alternative as required by 10 C.F.R. § 51.45(b)(3). Because NEPA-based challenges raised prior to the issuance of a DEIS become, in effect, challenges to the DEIS and, subsequently, the FEIS as those documents are issued, *see supra* section III.B, the Board considers contention EC 1.3 to be a challenge to the adequacy of the FEIS dry cooling discussion. The Board also concludes, however, that section 51.45(b)(3) remains the applicable standard in that section 51.90 instructs the Staff to prepare the FEIS "in accordance with the [DEIS-related] requirements in §§ 51.70(b) and 51.71," and section 51.71, in turn, instructs the Staff to address in the DEIS matters an applicant is instructed to address in the ER under section 51.45. *See* 10 C.F.R. §§ 51.90, 51.71(a). Thus, the Board must decide whether the FEIS discussion of the dry cooling alternative is "sufficiently complete to aid the Commission in developing and exploring, pursuant to section 102(2)(E) of NEPA, 'appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.'" *Id.* § 51.45(b)(3). And in that regard, Staff witnesses testified that in determining the level of detail in which to analyze dry cooling as an alternative, they followed ESRP § 9.4.1, which states "[t]he depth of the analysis should be governed by the nature and magnitude of proposed heat dissipation system impacts" 2007 ESRP at 9.4.1-5; *see* Staff EC 1.3 Direct Testimony at 9-11.

5. Adequacy of Assessment of Dry Cooling System as an Alternative

4.135 Because the Staff found the impacts from the proposed closed-cycle wet cooling system to be SMALL, pursuant to ESRP § 9.4.1, the Staff indicated it did not conduct a more detailed analysis of dry cooling. *See* Staff EC 1.3 Direct Testimony at 10-11. Joint Intervenors do not challenge the Staff's reliance on this ESRP guidance, but instead argue that even under ESRP § 9.4.1 the Staff should have analyzed dry cooling in more detail because its SMALL impacts conclusion was unjustified. *See* Joint Intervenors Proposed Findings at 28-30; Joint Intervenors Reply Findings at 7-8.

4.136 Having found the Staff reasonably concluded that impacts from the proposed wet cooling system would be SMALL, *see* section IV.A.9, above, we

also find that it appropriately followed its own NEPA guidance in providing a more limited discussion of the dry cooling alternative than it would have if the impacts had been MODERATE or LARGE. The FEIS assessment of system design alternatives does discuss the environmental impacts of dry cooling, albeit qualitatively, and compares them to the impacts of the proposed wet cooling system before concluding that dry cooling would not be preferable, *see* FEIS 1B, at 9-26 to -27, in accordance with section 51.45(b)(3).³⁴ Even if that were not the case, however, for the reasons outlined below, the preponderance of the evidence before the Board supports the conclusion that the FEIS discussion, as supplemented by the information now before the Board as a result of the evidentiary hearing, establishes that (1) the agency's NEPA obligations in connection with the adequacy of the discussion of dry cooling have been satisfied; and (2) the Staff's conclusion that the dry cooling alternative is not the preferable alternative relative to proposed Vogtle Units 3 and 4 is a reasonable determination.

a. Extremely Sensitive Biological Resources

4.137 As was noted above, *see supra* section IV.B.3, the FEIS cites EPA's extensive rulemaking analysis of cooling technologies and conclusion that dry cooling is not the best available cooling technology for a national requirement as support for not finding dry cooling to be preferable to closed-cycle wet cooling for proposed Vogtle Units 3 and 4.³⁵ *See* FEIS 1B, at 9-26. As was also discussed above, *see supra* section III.B, the Staff has the discretion to rely on the data and inferences from this EPA analysis. At the same time, as we noted in our order admitting contention EC 1.3, EPA stated in that rule that dry cooling might be appropriate for some facilities if, for example, they would rely on bodies of water with "extremely sensitive biological resources." LBP-07-3, 65 NRC at 260 (quoting 66 Fed. Reg. at 65,282); *see also* LBP-08-3, 67 NRC at 91 (summary disposition ruling regarding EC 1.3). Thus, further NRC analysis of dry cooling might be necessary despite EPA's analysis if proposed Vogtle Units 3 and 4 were to fall into the category of facilities affecting extremely sensitive biological resources (ESBRs).

³⁴ 10 C.F.R. § 51.45(b)(3) states that "[t]o the extent practicable, the environmental impacts of the proposal and the alternatives should be presented in comparative form."

³⁵ The statement of considerations accompanying the EPA rule includes an analysis of dry cooling implementation as a national strategy based on a nearly zero intake flow and rejects dry cooling as the national minimum requirement because (1) dry cooling technology carries costs that are sufficient to pose a barrier to entry into the marketplace for some facilities; (2) dry cooling has some detrimental effect on energy production by reducing energy efficiency of steam turbines; (3) dry cooling may pose unfair competitive disadvantages by region and climate; and (4) dry cooling technologies pose significant engineering feasibility problems. EPA also indicated the cost is estimated at more than three times the cost of wet cooling. *See* 66 Fed. Reg. at 65,282.

4.138 As Staff witness Dr. Masnik noted, *see* Tr. at 1066-67, EPA did not define ESBRS; instead, it merely listed as examples “endangered species” and “specially protected areas,” 66 Fed. Reg. at 65,282. We agree with the Staff, however, that its definition of “important species” likely encompasses any ESBRS that might be affected by proposed Vogtle Units 3 and 4.

4.139 Joint Intervenors appear to argue that the presence of ESBRS in the vicinity of the VEGP site should, by itself, trigger a more detailed analysis of dry cooling.³⁶ *See* Joint Intervenors Reply Findings at 11. But EPA stated only that dry cooling “*may* be the appropriate cooling technology for some facilities” and that “[t]his *could* be the case” when ESBRS are present. 66 Fed. Reg. at 65,282 (emphasis added). At a minimum, the mere presence of ESBRS in the vicinity of a project does not equate to dry cooling being the appropriate cooling technology for that project. Nor do we think it reasonable that the possibility that dry cooling may be appropriate by reason of the presence of ESBRS should necessarily trigger a detailed analysis of the dry cooling alternative if it can be shown that any impacts of a wet cooling system to ESBRS are likely to be minor. Otherwise, the presence of a single specimen of an endangered species near a proposed power plant could trigger an in-depth study of dry cooling even if the plant would have only an insignificant effect on the specimen, and even less on the species. We therefore agree with the Staff and SNC that some impact to ESBRS greater than SMALL must be involved to trigger the requirement of a more detailed analysis.³⁷ Thus, because the information in the FEIS properly shows the proposed wet cooling system for Vogtle Units 3 and 4 will have no more than SMALL impacts on important species,³⁸ *see supra* section IV.A.9, we find that the Staff’s reliance on EPA’s analysis of dry cooling was reasonable and that the FEIS therefore contained sufficient information to support a finding that dry cooling would not be a preferable alternative to wet cooling at the VEGP site.

³⁶ Joint Intervenors also appeared to maintain, perhaps in the alternative, that a more detailed discussion was necessary because the Staff’s SMALL impacts conclusion was unfounded. *See* Tr. at 1112, 1175.

³⁷ SNC asserts that the definition of ESBRS includes a further requirement that the proposed non-dry cooling system pose “significant risks” to the species or area in question. *See* Coutant EC 1.3 Direct Testimony at 4; *see also* Tr. at 1046-47. We do not find it necessary to determine whether the characterization is appropriate, however, as we conclude that some level of impact on ESBRS beyond SMALL must be present to trigger a more detailed discussion of dry cooling than was provided in the FEIS.

³⁸ As we noted in sections IV.A.4.c and IV.A.5.c, above, the Staff’s analysis of impacts is further supported with regard to the shortnose sturgeon by NMFS, which the Staff consulted pursuant to the Endangered Species Act and which stated that proposed Vogtle Units 3 and 4 are “not likely to adversely affect shortnose sturgeon.” NMFS Consultation Letter at 4. Though Joint Intervenors apparently discount the NMFS letter, they do so on the basis of construction impacts, *see* Joint Intervenors Reply Findings at 12, which are not associated with the facility cooling system operational impacts question that is the focus of contention EC 1.3.

b. Dry Cooling as a Feasible Alternative

4.140 In addition, SNC asserts that NEPA does not require a more detailed analysis of dry cooling as an alternative because it is not feasible for a large nuclear power plant at the VEGP site and is therefore not a “reasonable” alternative that must be discussed under NEPA. *See* SNC Proposed Findings at 55-56. The feasibility argument centers on the high level of risk associated with implementing a dry cooling technology that is unproven for an application of the size and geographical location of the Vogtle Units 3 and 4 AP1000 reactors. Given the various implementation risks discussed below, the preponderance of the evidence before us leads us to conclude the use of dry cooling is not a feasible alternative for an AP1000 reactor at the VEGP site.

i. TECHNICAL BACKGROUND

4.141 To generate electricity, a pressurized water nuclear reactor (such as the AP1000) heats water into steam in the steam generators. The steam is then passed to a turbine. The turbine turns a generator to create electricity, while the steam is condensed back into water and returned to the steam generator to repeat the cycle. *See* Cuchens EC 1.3 Direct Testimony at 3-4; SNC Air-Cooled Feasibility Study at 3.

4.142 According to SNC witness Mr. Cuchens, during the steam condenser cooling process, as steam condenses back into liquid water, it takes up significantly less space or volume, which creates a vacuum inside the steam condenser and/or turbine exhaust that is referred to as backpressure. *See* Cuchens EC 1.3 Direct Testimony at 5. The turbine specified in the AP1000 DCD is a standard-backpressure turbine (sometimes referred to as a low-backpressure turbine) that is designed to operate at an average backpressure of 2.92 inches (”) of mercury absolute pressure (HgA) at the design inlet cold water temperature of 91°F, *see* SNC Air-Cooled Feasibility Study at 6; Exh. SNC000028, at 10.2-18 (AP1000 DCD (Rev. 17) § 10.2) [hereinafter AP1000 DCD Rev. 17], though it can operate at backpressures within a range of 1.0” HgA to 5.0” HgA, *see* Cuchens EC 1.3 Direct Testimony at 6-7. At backpressures above 5.0” HgA, but below the standard-backpressure turbine’s trip point of 6.0” HgA, the turbine cannot operate continuously. *See* SNC Air-Cooled Feasibility Study at 6. At 6.0” HgA, the turbine is set to trip offline to prevent damage to the turbine. *See id.* Thus, a standard-backpressure turbine cannot function reliably at higher backpressures. A turbine trip can also lead to a reactor scram, which is a rapid shutdown of the reactor, that increases the risk of a safety challenge to the reactor. *See* Tr. at 1039-40. On the other hand, high-backpressure turbines operate at an average backpressure of 8.0” HgA or higher, *see* Powers EC 1.3 Direct Testimony at 5, thus minimizing the potential for a reactor scram and turbine trip at relatively high backpressures, *see* Cuchens EC 1.3 Rebuttal Testimony at 5; Tr. at 985, 1039-40.

4.143 The backpressure experienced in an ACC-cooled unit depends largely on the Initial Temperature Difference (ITD), which is the difference between the temperature of the outside air (ambient temperature) and the temperature of the steam condensing within the tube bundles. *See* Cuchens EC 1.3 Direct Testimony at 7; SNC Air-Cooled Feasibility Study at 13; *see also* Powers EC 1.3 Direct Testimony at 5. At a given ITD, the higher the ambient temperature in which an air-cooled turbine operates, the higher the steam saturation temperature and, therefore, the higher the backpressures on the turbine. *See* Cuchens Direct Testimony at 7; SNC Air-Cooled Feasibility Study at 13. According to uncontroverted testimony by Mr. Cuchens, current state-of-the-art ACCs are designed with an ITD of 40°F, and a few have an ITD as low as 35°F, but no currently existing ACC has an ITD lower than 35°F. *Id.*

4.144 Just as a wet cooling system can operate with either a standard-backpressure or a high-backpressure turbine, a dry cooling system can also be paired with either a standard-backpressure turbine or a high-backpressure turbine under the proper conditions.

ii. FEASIBILITY OF A HIGH-BACKPRESSURE TURBINE AT VOGTLE

4.145 Although Joint Intervenors appear to have abandoned the notion that an ACC with the AP1000 standard-backpressure turbine is a reasonable alternative in this situation,³⁹ they continue to assert that a high-backpressure turbine coupled

³⁹Even if Joint Intervenors had continued to press that argument, however, we would find that the combination of a standard AP1000 turbine and an ACC would not be feasible at the VEGP site. The standard AP1000 turbine is a standard-backpressure turbine. *See* SNC Air-Cooled Feasibility Study at 5-6 (normal operating backpressure for AP1000 turbine is between 1.0" and 5.0" HgA). SNC witness James Cuchens nonetheless stated that a high-backpressure turbine would be a "necessity" for an air-cooled system at the VEGP site, Tr. at 1203, and Joint Intervenors witness William Powers confirmed that a high-backpressure turbine would be the "most likely" scenario, Tr. at 1202. This certainly seems correct, for as Mr. Cuchens pointed out, and Mr. Powers did not dispute, at the design temperature for the Vogtle site of 95°F, a state-of-the-art ACC (with an ITD of 35°F) would produce a backpressure of 4.5" HgA, just 0.5" below the alarm point for the standard turbine. *See* Cuchens EC 1.3 Direct Testimony at 8; Tr. at 982-83 (Cuchens); Tr. at 1120-21 (Powers). Higher ambient air temperatures, wind influences, and normally expected fouling of the ACC would lead to further backpressure increases. *See* Tr. at 983 (Cuchens: "very difficult" to maintain the 5 inches in very high temperature period); Tr. at 984 (Cuchens: "fouling itself can incur back pressures additive to half of an inch to one inch"); Tr. at 995 (Cuchens: "So 4.5 represents 95 degrees in a perfect calm, a very perfect calm day, no wind influence, no recirculation influence, no fouling influences"). Also in this regard, Mr. Cuchens testified regarding and produced trip reports indicating that, for example, particularly in its early years wind effects substantially impacted performance and caused load swings and unit trips at Matimba, an ACC-cooled South African coal plant consisting of six 665-megawatt electric (MWe) units. *See* Tr. at 1268-69; Kogan Creek Investigation at 3-4, 12. Although Mr. Powers argued that wind effects could be mitigated with wind skirts like the ones implemented at Matimba, (Continued)

with an ACC would be feasible for the proposed Vogtle Units 3 and 4. *See* Joint Intervenors Proposed Findings at 22-23. High-backpressure turbines have never been used with large nuclear reactor units, however. *See* Tr. at 1170 (“Judge Trikouros: So there is experience out there with high backpressure turbines, but they are not nuclear? Mr. Powers: That is correct.”); Tr. at 1217 (“Judge Trikouros: Are you aware of a high backpressure turbine in use in a commercial nuclear power plant regardless of the specific cooling system applied at the plant? Mr. Powers: No. . . . Mr. Cuchens: No.”). As Mr. Cuchens stated, and Mr. Powers did not contradict, there are no existing high-backpressure turbines capable of handling the 8.4 million pounds per hour steam flow from an 1154-megawatt electric (MWe) AP1000 nuclear unit such as are planned for Vogtle Units 3 and 4. *See* Cuchens EC 1.3 Direct Testimony at 9; SNC Air-Cooled Feasibility Study at 17; Tr. at 1212. The largest currently operating high-backpressure turbines that either party mentioned are in the mid-600 MWe South African plants, which are not triple-exhaust turbines. *See* Tr. at 978. Mr. Powers does appear to rely on North Anna Unit 4, which is to utilize an Economic Simplified Boiling Water Reactor (ESBWR) certified design as proposed in the North Anna ESP application, *see* Exh. JTI000051 at 1.2-50 (excerpts from General Electric (GE)-Hitachi Nuclear Energy, ESBWR [DCD] Tier 2, chap. 1, §§ 1.1 to 1.11 (rev. 4 Sept. 2007)), as an example of a large nuclear unit with a completely dry cooling system and possibly a high-backpressure turbine, *see* Tr. at 1211, 1215. When asked, however, Mr. Powers admitted that to his knowledge ESBWR designer GE had not built a prototype of such a turbine.⁴⁰ *See* Tr. at 1215. Moreover, since no combined

see Tr. at 1277, as Mr. Cuchens testified, the ACC for Vogtle Units 3 and 4 would likely be designed differently from Matimba, because the AP1000 design is more open so that the ACC would be exposed on all sides so as to require protection on all sides, thereby needing a wind skirt design that has not previously been implemented. *See* Tr. at 1282-83. For his part, Mr. Powers, albeit asserting that “a manufacturer has to meet site conditions,” Tr. at 1120, did not indicate how the effects of fouling might be mitigated.

The record before us thus indicates that to utilize an ACC with the standard AP1000 DCD, a high-backpressure turbine would likely be required so as to avoid operating at or near the alarm setpoints, *see* Tr. at 980-84, 999-1000, that bring the safety and reliability challenges posed by the higher likelihood of standard-backpressure turbine trips and reactor scrams, *see* Tr. at 1039, 1203-04. Accordingly, it seems clear that the combination of an ACC with a triple-exhaust, standard-backpressure turbine is neither “sufficiently demonstrated nor practicable for use” in this instance so as to be a viable NEPA alternative. *Kelley v. Selin*, 42 F.3d at 1521. Further, we note that because an indirect dry cooling system would have the same ITD limitations as an ACC, *see* Tr. at 1242, it also would not be a feasible alternative for use in combination with a standard-backpressure turbine.

⁴⁰ Joint Intervenors assertion that this proceeding, like the North Anna Unit 4 proceeding, concerns an ESP application does not strengthen their argument in this regard. *See* Joint Intervenors Reply Findings at 9. Given the NRC did not make a feasibility determination regarding the facility cooling

(Continued)

license (COL) application has been filed for North Anna Unit 4, we do not know if the facility will attempt to use a high-backpressure turbine to implement the completely dry cooling system Dominion apparently committed to relative to the ESP.

4.146 Mr. Powers also suggested that the standard-backpressure turbine for the AP1000 might be modified to become a high-backpressure turbine by removing the last-stage bucket, i.e., the last set of turbine blades. *See* Tr. at 1159. However, as Mr. Cuchens noted, modification of a standard-backpressure turbine to a high-backpressure turbine has “never been done for a unit the size of AP-1000 ever before,” and no modifications of this nature have been made for a triple-exhaust turbine. Tr. at 1206. When queried, Mr. Powers agreed that the largest existing high-backpressure turbines that are “modifications of a standard turbine by the removal of the last stage bucket” are those at South Africa’s Matimba plant, “at just under 700 megawatts.” Tr. at 1209. Again, however, as Mr. Cuchens indicated, these are not triple-exhaust turbines. *See* Tr. at 978.

4.147 Given that (1) a high-backpressure turbine capable of handling the steam flow from an AP1000 nuclear unit does not currently exist; and (2) modification of a large triple-exhaust turbine like the AP1000 standard-backpressure turbine to a high-backpressure turbine has never been done, it seems apparent that the use of an ACC and high-backpressure turbine in this instance poses a significant implementation risk such that it is neither “sufficiently demonstrated nor practicable for use” so as to be a viable NEPA alternative. *Kelley v. Selin*, 42 F.3d at 1521.

c. Dry Cooling as a Preferable Alternative

4.148 Additionally, for the reasons set forth below, we find that the extensive hearing record before us, as it supplements the information in the FEIS, fully supports the Staff’s conclusion that dry cooling is not preferable to closed-cycle wet cooling towers for Vogtle Units 3 and 4. To be sure, Staff witnesses admitted

system in granting this ESP, *see* Tr. at 1254-55, this hardly supports the feasibility finding necessary to require an applicant proposing a different cooling system to discuss dry cooling as an alternative.

Similarly, Joint Intervenors’ earlier references to a potential wet/dry hybrid cooling system for North Anna Unit 3, *see* Powers EC 1.3 Rebuttal Testimony at 5, which they did not pursue in their proposed findings, *see supra* note 12, also are unavailing. As Mr. Pierce and Mr. Cuchens pointed out, North Anna 3 would use a standard-backpressure turbine, *see* Tr. at 1212, and would be completely dry-cooled only under favorable (i.e., cool) weather conditions. *See* Tr. at 988-89; Exh. SNC000096 at 2-173 (Dominion, North Anna 3 [COL] Application, Part 2: Final Safety Analysis Report (rev. 1 Dec. 2008)) (“Maximum Water Conservation (MWC) — The dry cooling tower and hybrid cooling tower operate in series with a provision for cold weather bypass”). North Anna 3 therefore does not show that dry cooling would be feasible as a full-time cooling system with the turbine type being utilized at the VEGP site.

that dry cooling would largely eliminate impacts on aquatic biota. *See* NRC Staff EC 1.3 Direct Testimony at 7-8. Nonetheless, the record contains ample evidence that dry cooling would require significant modifications to the standard AP1000 design, reduce power output, cost more to design, implement, and maintain, require more land, and delay the licensing and construction process for these proposed facilities. Particularly when combined with the SMALL environmental impact of the closed-cycle wet cooling system, as established by the record regarding the Staff's conclusion concerning impingement/entrainment/thermal impacts on the aquatic environment (including ESBRs), as supplemented by the SNC impingement and entrainment studies, *see supra* sections IV.A.4 to .8, and the technological challenges of implementing a first-of-a-kind dry cooling system in a large nuclear plant that makes implementation here infeasible,⁴¹ *see supra* section IV.B.5.b, it is clear that the preponderance of the evidence associated with these factors supports a finding that, as the Staff found in its FEIS, the dry cooling alternative is not the preferable alternative.⁴²

i. NEED FOR MODIFICATIONS TO AP1000 DCD STANDARD DESIGN

4.149 SNC maintains that significant modifications to the AP1000 standard design would be needed to accommodate an ACC with or without a high-backpressure turbine. *See* Tr. at 1000-01. SNC presented essentially un rebutted evidence that changes would be necessary to the turbine building, turbine pedestal, feedwater heaters and associated piping, and steam surface condensers. *See* Cuchens EC 1.3 Direct Testimony at 26-28; Cuchens EC 1.3 Rebuttal Testimony at 5-6; Pierce EC 1.3 Rebuttal Testimony at 5; SNC Air-Cooled Feasibility Study at 26; Tr. at 1004-06, 1263-64. Mr. Cuchens particularly emphasized that the need to construct large steam ducts to carry steam from the turbine building to the ACC modules would impact areas with a significant amount of structural steel, thus requiring a redesign of the turbine building structure as well as the relocation of major equipment from its AP1000 DCD-specified locations to make room for the ducts. *See* Tr. at 1004-05; Exh. SNCR00026 at unnumbered slide 26 (James W. Cuchens, Dry Cooling Presentation). On the other hand, Joint Intervenors,

⁴¹ Although technical infeasibility, set forth in the previous section, provides a separate basis of support for why the FEIS did not need to analyze the dry cooling alternative in further detail, the same facts supporting a finding that dry cooling is not feasible also support a finding that it is not a preferable alternative if a fuller analysis is performed.

⁴² Under NEPA, once "the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs," *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989), so that the agency's NEPA obligations are satisfied once the record contains sufficient support and analysis regarding the dry cooling alternative to explain its determination for not finding dry cooling to be preferable.

who do not address the impact of turbine building modifications at all in their proposed findings, *see supra* note 12, failed to provide adequate evidence to rebut SNC's evidence that the modifications would be significant. For example, though Mr. Powers suggested that the steam ducts could be customized to accommodate the structural steel, *see* Tr. at 1156, he also stated that an additional detailed study would need to be made of the standard design to determine whether the building or the ducts should be modified, *see id.*, and he admitted that he himself had not reviewed the building plans, *see* Tr. at 1159. So too, while not prepared to discuss the extent of modifications identified by Mr. Cuchens, Mr. Powers did agree that changes to the standardized design could increase costs. *See* Tr. at 1161.

4.150 Additionally, Mr. Pierce suggested that modifications to the turbine would require modifications to the standard AP1000 design. If, for example, SNC were to employ a high-backpressure turbine that does not retain the Tier I characteristics of one high-pressure turbine, three low-pressure stages, and a condenser, an exemption from the certified design would be required. *See* Tr. at 1016-17. Indeed, Joint Intervenors appear to concede that certain portions of the DCD would need to be reanalyzed in light of the modification of the standard-backpressure turbine to a high-backpressure turbine. *See* Joint Intervenors Proposed Findings at 23.

ii. COST FACTORS

(1) *Energy Penalty*

4.151 The parties appear to agree that an ACC-cooled system at the VEGP site would produce less net electricity than the proposed wet-cooled system due to a combination of efficiency losses from operating at a higher backpressure and the parasitic load (i.e., electrical generation usage) differences that exist between operating wet systems and ACCs. Mr. Cuchens' analysis of dry cooling for proposed Vogtle Units 3 and 4 concluded that the parasitic load difference between a 4.5" HgA ACC and a wet cooling tower would be 9-15 MWe, depending on whether a mechanical draft or a natural draft wet tower were chosen for comparison. *See* SNC Air-Cooled Feasibility Study at 26. This difference is evidenced in a comparison of the energy requirements of the ACC fans with the circulating water pumps in a wet cooling tower and, for a mechanical wet cooling tower, the fans in the wet tower. *See id.* Mr. Powers appeared to agree that the difference between an ACC and a mechanical wet tower would be 9 MWe.⁴³ *See* Tr. at 1147-48. As Mr. Powers noted, there would be no parasitic load from fans

⁴³Mr. Powers correctly indicated that to be done fairly, the cost comparison has to be done on a consistent basis, i.e., wet mechanical vs. dry mechanical and wet natural draft vs. dry natural draft. *See* Tr. at 1232-33.

in a natural draft dry cooling system.⁴⁴ *See* Tr. at 1233. Thus, there might or might not be a parasitic load difference between wet and dry cooling systems, depending on whether one compares mechanical (i.e., fan-assisted) or natural draft systems.

4.152 Dry cooling systems do, however, appear to be less efficient than wet cooling systems and would, therefore, result in a lower power output regardless of parasitic load. Mr. Cuchens calculated that, at the VEGP site design temperature of 95°F, the backpressure difference between one of the proposed Vogtle units and a facility with an ACC with a 35°F ITD would lead to a reduction in power output of approximately 55 MWe in a standard-backpressure AP1000 turbine. *See* SNC Air-Cooled Feasibility Study at 15. Mr. Cuchens did not provide an output differential for a high-backpressure turbine because, as no high-backpressure turbines currently exist for applications such as the AP1000 nuclear reactor, no efficiency curves exist of the type he relied on to reach his 55 MWe figure for the standard-backpressure turbine. *See* Tr. at 1231. But as both Mr. Cuchens and Mr. Powers noted, conversion of a standard-backpressure turbine to a corresponding high-backpressure turbine would also result in some performance degradation because the modified turbine would no longer be able to extract as much energy from the steam passing over it. *See* Tr. at 1205, 1208 (Powers); Tr. at 1206-07 (Cuchens). Mr. Powers argued that the difference for a standard-backpressure turbine would be much smaller than the figure Mr. Cuchens gave, but did not provide his own figure for an ACC at the design temperature, instead stating that the total output differential between a dry-cooled plant and a wet-cooled plant under average conditions would be 15-20 MWe. *See* Powers EC 1.3 Direct Testimony at 9; Tr. at 1096. He also stated that a natural draft dry-cooled system, which in his opinion would actually have a lower parasitic load than a natural draft wet-cooled system, would experience a total performance penalty of 4% at 95°F with a yearly average of about 2%. *See* Tr. at 1233-34.

4.153 Overall, the information in the record supports a finding that a dry-cooled system will be less efficient than a wet-cooled system, particularly at or above the design temperature for the VEGP site, leading to less energy production, especially on hot days.⁴⁵

⁴⁴ Mr. Powers further stated that the natural draft dry tower would have a parasitic load advantage over a natural draft wet tower because the dry tower would not require circulating water pumps. *See id.* However, in the context of indirect dry cooling towers, which rely on circulating water or glycol, rather than air, as a cooling medium, *see supra* section IV.B.2, we think it unlikely that the parasitic load from the pumps could be eliminated for the dry towers.

⁴⁵ To the degree Joint Intervenors have criticized the Staff's failure to calculate the efficiency penalty associated with dry cooling, *see* Joint Intervenors Proposed Findings at 26, any significance to such an omission is now irrelevant as the hearing record and this opinion supplement the FEIS. *See supra* section III.A.

(2) *Capital Costs*

4.154 It is also undisputed that a dry cooling system would cost more to build than would the proposed wet natural draft towers. Witnesses for SNC and Joint Intervenor appeared to agree that an ACC would cost around \$200 million more per reactor unit than would a natural draft wet cooling tower system. *See* Cuchens EC 1.3 Direct Testimony at 22, Tr. at 1151 (Powers). Additionally, both parties appear to agree that modifications taking the facility design away from the standard AP1000 design, which would require additional design/engineering/operational/safety analyses, would further increase capital costs. *See* Cuchens EC 1.3 Direct Testimony at 28-29; Pierce EC 1.3 Rebuttal Testimony, at 6; Tr. at 1161 (Powers); Tr. at 1243-44 (Pierce). In this regard, Mr. Pierce indicated that the capital cost differential between using natural draft wet towers and using ACCs would increase significantly, beyond the \$200 million dollar figure identified above, if a high-backpressure turbine were used in place of the standard AP1000 turbine. *See* Tr. at 1279 (Pierce: “So look at a dry cooling system with a high backpressure turbine . . . and now so you’re looking at several hundred million dollars at this point”). Thus, although the exact redesign costs are unknown at this point, the parties’ testimony clearly indicated they could be quite significant.

(3) *Maintenance Costs*

4.155 The parties dispute as well the extent to which maintenance requirements would be greater for an air-cooled system than for the proposed wet cooling system. SNC witness Mr. Cuchens stated that the metal structure of the ACC, which makes it subject to corrosion, and the greater number of moving parts in an ACC would lead to a greater need for maintenance. *See* Tr. at 1008-09. In contrast, Joint Intervenor witness Mr. Powers argues that fans in an ACC, “operating in clean, ambient air” would not be subject to a significant amount of fouling and would therefore not require a significant amount of maintenance. *See* Tr. at 1250-51. Mr. Powers, however, did not offer any testimony to contradict SNC’s evidence that actual experience with ACCs indicates that a significant amount of maintenance was required. *See* Tr. at 1246-47, 1250-51; Kogan Creek Investigation at 3-4. Accordingly, we find that maintenance costs would likely be higher for an ACC than for a wet cooling system.⁴⁶

⁴⁶In the context of maintenance requirements, the parties did not specifically discuss natural draft dry cooling towers. Nonetheless, given the evidence in the record indicating that capital costs for natural draft dry towers are two to three times higher than for ACCs, *see* Kogan Creek Investigation at 10, we consider it likely the increased capital costs for a natural draft dry tower would outweigh the lower maintenance costs.

iii. LAND USE IMPACTS

4.156 SNC and Joint Intervenors both indicated that ACCs would occupy more land than the proposed wet cooling towers. SNC witness Thomas Moorer estimated an area of 248.9 acres for a 324-cell ACC, *see* Moorer EC 1.3 Direct Testimony at 4, but noted that a 202-cell ACC (the size that would achieve a 35°F ITD) would occupy about two-thirds of that area, *see* Tr. at 1057, which would translate to approximately 166 acres. Mr. Powers, testifying for Joint Intervenors, suggested that the 202-cell ACC would occupy about 60% of the area of a 324-cell ACC, *see* Powers EC 1.3 Rebuttal Testimony at 4-5, or just under 150 acres, but Joint Intervenors now appear to concede that an ACC would require an area of approximately two-thirds of the expanse originally estimated by Mr. Moorer. *See* Joint Intervenors Proposed Findings at 27. By both parties' estimates, however, an ACC would require more than twice the amount of land the proposed Vogtle Units 3 and 4 wet cooling towers would occupy. *See* Moorer EC 1.3 Direct Testimony at 5 (wet towers would occupy 70 acres). Thus, land use impacts would necessarily seem to be greater with an ACC than with the proposed wet cooling system.⁴⁷

iv. SCHEDULE IMPACTS

4.157 Finally, depending on the extent of modifications necessary to the AP1000 standard design to accommodate dry cooling, *see* section IV.B.5.c.i, above, portions of the site safety analysis report might need to be reconsidered before proposed Vogtle Units 3 and 4 could be licensed as dry-cooled units. *See* Pierce EC 1.3 Rebuttal at 5-6; Tr. at 1018-23. For example, Mr. Pierce testified that a design analysis would need to be done of the effect of a dry cooling system on the plant's ability to accommodate the full range of design basis events, such as a full-load rejection. *See* Tr. at 1017-19. Although this topic was only discussed qualitatively by the parties, implementing dry cooling at proposed Vogtle Units 3 and 4 no doubt would lead to delays in the licensing process and incur additional analysis costs. *See id.* at 1255.

4.158 Thus, the evidentiary support for the various factors outlined above establishes by a preponderance that impacts associated with the design/construction/operational changes from the AP1000 standard design that will result by implementing a dry cooling system in lieu of the planned wet cooling system, as well

⁴⁷ Although neither party addressed natural draft dry towers in this context in their proposed findings, SNC witness Mr. Cuchens stated that natural draft dry towers would require an amount of land between the amount required for wet towers and the amount required for an ACC. *See* Tr. at 1058-59. Thus, natural draft dry cooling towers would also likely have greater land use impacts than the proposed Vogtle Units 3 and 4 natural draft wet towers.

as those arising from increased costs, expanded land use, and scheduling delays, render dry cooling as not being preferable to wet cooling in this instance.

6. Summary of Findings Regarding Contention EC 1.3

4.159 In summary, the Board finds that the discussion of the dry cooling alternative in the Staff FEIS, as supplemented by the record in this proceeding, satisfies the NRC's NEPA obligations. Because the Staff reasonably concluded that aquatic impacts in general, and impacts to ESBRs in particular, would be SMALL, the Staff reasonably relied on the ESRP assessment guidance and EPA's cooling technology rulemaking in arriving at a finding that dry cooling is not a preferable alternative. In this regard, we disagree with Joint Intervenors assertion that the mere presence of ESBRs in the vicinity of the VEGP site mandates a detailed analysis of dry cooling, and we find the Staff's reliance on EPA's analysis to be reasonable absent any indication that the impact of the proposed new reactors on ESBRs would be more than minor.

4.160 Additionally, dry cooling need not be explored in more detail for the VEGP site under NEPA because, in this instance, the preponderance of the evidence establishes it is not technologically feasible and is therefore not a "reasonable" alternative for NEPA purposes. The high-backpressure turbine, although apparently now championed by Joint Intervenors because it would minimize the safety and reliability problems that are likely to be caused by using dry cooling in conjunction with a standard-backpressure AP1000 turbine, is an unproven technology for large nuclear plants such as the proposed Vogtle units.

4.161 Finally, the preponderance of the evidence in the record of this proceeding, which supplements the FEIS, further demonstrates that dry cooling is not a preferable alternative to a closed-cycle wet cooling system in this instance because it would require substantial modifications going away from the standard AP1000 design, cost significantly more, require more land, and likely would delay construction and operation of the new reactors.

4.162 Accordingly, a judgment on the merits regarding contention EC 1.3 is entered in favor of the Staff and SNC.

C. Contention EC 6.0

1. Scope of Contention EC 6.0

4.163 As discussed in section II.B, above, Joint Intervenors contention EC 6.0 as submitted was broader than what was admitted by the Licensing Board. The Board found that certain foundational support proffered for the contention did not meet the requirements for contention admissibility under 10 C.F.R. § 2.309(f). The contention as admitted reflects Joint Intervenors concerns that the discussion

regarding federal navigation channel dredging was inadequate to support the Staff's finding that the impacts of dredging could be MODERATE. Specifically, it includes Joint Intervenors allegations — as discussed in the declarations of their two expert witnesses, Dr. Donald Hayes and Dr. Shawn Young — that the FEIS should contain more information about the extent and duration of any dredging, the impacts on water quality, the disposal of any dredged material, and the impacts on aquatic biota as a result of any dredging. In addition, it includes Joint Intervenors claim that the FEIS should have contained a discussion of environmental impacts from any releases that the USACE might make from upstream reservoirs to accommodate barge transportation.

4.164 There were references in the testimony proffered during the evidentiary phase of this proceeding that mentioned the potential for transportation of construction components by rail or highway. *See* Tr. at 1319-20. However, to the extent that Joint Intervenors now claim that the Staff's FEIS should have analyzed the impacts associated with other modes of transportation for construction components, *see* Joint Intervenors Proposed Findings at 31-32; Joint Intervenors Reply Findings at 18-20, these issues are not properly within the scope of EC 6.0 because these issues were not raised in the contention admissibility phase. Alternative modes of transportation will be discussed here only to illustrate the other options besides barging that SNC has relative to construction component transportation.

2. *Witnesses and Evidence Presented*

4.165 SNC, the Staff, and Joint Intervenors presented witnesses in support of their respective positions on contention EC 6.0, providing written direct and rebuttal testimony, with supporting exhibits, as well as oral testimony at the evidentiary hearing. *See* Tr. at 1287-1382, 1475-1631; [SNC] Testimony of Jeffrey Neubert, Benjamin Smith, and David Scott Concerning EC 6.0 (fol. Tr. at 1290) [hereinafter Neubert/Smith/Scott EC 6.0 Direct Testimony]; [SNC] Testimony of Thomas Moorer Concerning EC 6.0 (fol. Tr. at 1291) [hereinafter Moorer EC 6.0 Direct Testimony]; [SNC] Testimony of Dr. Charles Coutant Concerning EC 6.0 (fol. Tr. at 1292) [hereinafter Coutant EC 6.0 Direct Testimony]; [SNC] Rebuttal Testimony of Dr. Charles C. Coutant on [EC] 6.0 (fol. Tr. at 1293) [hereinafter Coutant EC 6.0 Rebuttal Testimony]; NRC Staff Testimony of Mark D. Notich, Anne R. Kuntzleman, Rebekah H. Krieg, Dr. Christopher B. Cook, and Lance W. Vail Concerning Environmental Contention EC 6.0 (fol. Tr. at 1477) [hereinafter Staff EC 6.0 Direct Testimony]; NRC Staff Rebuttal Testimony of Anne R. Kuntzleman Concerning Environmental Contention EC 6.0 (fol. Tr. at 1479) [hereinafter Staff EC 6.0 Rebuttal Testimony]; Revised Pre-filed Direct Testimony of Shawn P. Young in Support of EC 6.0 (fol. Tr. at 1569) [hereinafter Young EC 6.0 Direct Testimony]; Rebuttal Testimony of Dr. Shawn P. Young

Concerning Contention EC 6.0 (fol. Tr. at 1570) [hereinafter Young EC 6.0 Rebuttal Testimony]; Revised Pre-filed Direct Testimony of Donald F. Hayes in Support of EC 6.0 (fol. Tr. at 1572) [hereinafter Hayes EC 6.0 Direct Testimony]; Prefiled Rebuttal Testimony of Dr. Donald [Hayes] Concerning Contention EC 6.0 (fol. Tr. at 1573) [hereinafter Hayes EC 6.0 Rebuttal Testimony]. USACE representatives who appeared at the request of the Staff, provided direct testimony and oral testimony at the evidentiary hearing. *See* Tr. at 1383-1467; [USACE] Testimony of William G. Bailey, Carol L. Bernstein, Lyle J. Maciejewski, and Stanley L. Simpson Concerning Environmental Contention EC 6.0 (fol. Tr. at 1385) [hereinafter USACE EC 6.0 Direct Testimony].

a. SNC Witnesses

4.166 SNC presented five witnesses: (1) Dr. Charles C. Coutant, a consultant for SNC in the areas of aquatic ecology and fisheries biology; (2) Thomas C. Moorer, SNC's Project Manager for Environmental Support; (3) Jeffrey L. Neubert, Director of Logistics for Nuclear Power for Westinghouse Electric Company; (4) Captain H. David Scott, Owner, President, and Principal Surveyor of Southeastern Marine Surveying Company; and (5) Benjamin B. Smith, Operations Manager for Stevens Towing Company. *See* Tr. at 1287-1382.

4.167 Dr. Coutant's and Mr. Moorer's expert qualifications have been previously discussed in connection with contention EC 1.2. *See supra* section IV.A.1.a.

4.168 Mr. Neubert earned a Bachelor of Science degree in Engineering Mechanics from Pennsylvania State University and an Executive Master of Business Administration from University of Pittsburgh. He has over 35 years of experience in logistics management, including teaching university-level courses on transportation management, logistics management, and supply chain management. Mr. Neubert is currently employed as the Director of Logistics for Nuclear Power at Westinghouse Electric Company, where, earlier in his career, he was involved in the delivery of major components to over forty nuclear power plant construction sites, including Vogtle Units 1 and 2. *See* Neubert/Smith/Scott EC 6.0 Direct Testimony at 1-2.

4.169 Captain Scott earned a Bachelor of Science in Nautical Science from Maine Maritime Academy. He has over 30 years of experience in the shipping trade and maritime industry, holds licenses and certifications for piloting vessels on oceans and on the Savannah River, and for the past 26 years has served as the Owner, President, and Principal Surveyor of Southeastern Marine Surveying Company. *See* Neubert/Smith/Scott EC 6.0 Direct Testimony at 1, 3.

4.170 Mr. Smith earned a Bachelor of Arts in History from the University of the South, Sewanee, Tennessee, and a Master of Business Administration from the Citadel. He has over 20 years of experience planning and supervising all inland and offshore operations for a barge transportation company with a fleet

of nine tugboats and twenty-five barges. He has supervised operations on all of the navigable rivers in the Southeast, including the Savannah River, delivering large manufactured pieces, transformers, generators, turbines, and chemical plant vessels. Mr. Smith is versed in shallow water tug and barge operations and the practices and techniques required for deliveries of difficult project cargo. He is currently employed as the Operations Manager at Stevens Towing Company, Inc. *See* Neubert/Smith/Scott EC 6.0 Direct Testimony at 1-3.

b. Staff Witnesses

4.171 The Staff presented five witnesses: (1) Dr. Christopher B. Cook, Senior Hydrologist, DSER/NRO/NRC; (2) Rebekah H. Krieg, Senior Research Scientist in the Ecology Group, ESD/EED/PNNL; (3) Anne R. Kuntzleman, Aquatic Biologist, DSER/NRO/NRC; (4) Mark D. Notich, Senior Project Manager, DSER/NRO/NRC; and (5) Lance W. Vail, Senior Research Engineer in the Hydrology Group, ESD/EED/PNNL. *See* Tr. at 1475-1566.

4.172 The qualifications of Dr. Cook, Ms. Krieg, Ms. Kuntzleman, and Mr. Vail have been previously discussed by the Board in connection with contention EC 1.2. *See supra* section IV.A.1.b.

4.173 Mr. Notich earned a Bachelor of Science in Agricultural Chemistry from the University of Maryland. He has over 30 years experience with the preparation of environmental assessments and environmental impact statements. Mr. Notich currently is employed as a Senior Project Manager, DSER/NRO/NRC. In this capacity he served as the NRC Project Manager for the environmental review of the Vogtle ESP application. *See* Staff EC 6.0 Direct Testimony at 1 & unnumbered attach. 6 (Mark D. Notich SPQ).

c. USACE Witnesses

4.174 Pursuant to the Staff's request and an authorization by the USACE Savannah District to address topics within USACE's authority, *see* USACE EC 6.0 Direct Testimony at 3, four USACE witnesses also appeared: (1) William G. Bailey; (2) Carol L. Bernstein; (3) Lyle J. Maciejewski; and (4) Stanley L. Simpson. *See* Tr. at 1383-1466.

4.175 Mr. Bailey earned a Bachelor of Science in Forestry from Syracuse University, a Bachelor of Science in Biology from SUNY College of Environmental Science and Forestry, and a Master of Science in Civil Engineering from North Carolina State University. He is currently employed with USACE as Chief of the Savannah Planning Unit, Savannah-Mobile Regional Planning Center (Environmental Resources, Plan Formulation, and Economics), Mobile District. He manages the Savannah District Unit's planning program, which

evaluates the environmental impacts and economic feasibility of new projects and the environmental compliance of existing projects. In this capacity Mr. Bailey provides advice and direction and reviews the work of environmental Staff. *See* USACE EC 6.0 Direct Testimony at 1-2 & unnumbered attach. 2 (William George Bailey SPQ); Tr. at 1390-91.

4.176 Ms. Bernstein earned a Bachelor of Science in Renewable Natural Resources from the University of Arizona and a Master of Science in Interdisciplinary Environmental Sciences Studies from Johns Hopkins University. She is currently employed with USACE as Chief of the Coastal Branch, Regulatory Division, Savannah District. The Regulatory Division has full responsibility for planning, programming, administering, and enforcing the Regulatory Program, including permit evaluation, enforcement, noncompliance, and mitigation under the Rivers and Harbors Act and the Clean Water Act. In her capacity as Chief of the Coastal Branch in the Regulatory Division she manages and executes the regulatory program for the southern half of Georgia and supervises eighteen interdisciplinary staff, including two section chiefs and one field office. *See* USACE EC 6.0 Direct Testimony at 1-2 & unnumbered attach. 4 (Carol L. Bernstein SPQ); Tr. at 1390.

4.177 Mr. Maciejewski earned both a Bachelor's and a Master's degree in Civil Engineering from the South Dakota School of Mines and Technology. He is currently employed with USACE as Operations Project Manager in the Navigations Branch, Operations Division, Savannah District. In this capacity he budgets, schedules work, coordinates, monitors funding, and serves as technical point of contact with internal and external customers for work involving maintenance dredging of the Savannah Harbor and river basin. *See* USACE EC 6.0 Direct Testimony at 1-2 & unnumbered attach. 6 (Lyle Maciejewski SPQ); Tr. at 1389.

4.178 Mr. Simpson earned a Bachelor of Science in Civil Engineering from Clemson University. He is currently employed with USACE as the Savannah District Water Control Manager, Engineering Division, Wilmington District. In his capacity as the Water Control Manager, Mr. Simpson is involved in the day-to-day operations of water management in the Savannah River Basin, establishing rules in the Water Control Manuals, and developing the Drought Contingency Plan. He manages water resources, prepares periodic reports and data-calls on Water Control activities and the Water Control Data System, and provides technical support to other USACE divisions. His work involves daily communication with USACE personnel and entities both within and outside the USACE. *See* USACE EC 6.0 Direct Testimony at 1-3 & unnumbered attach. 8 (Stanley L. Simpson SPQ); Tr. at 1392-93.

d. Joint Intervenors Witnesses

4.179 Joint Intervenors presented two witnesses for contention EC 6.0: Dr.

Donald Hayes, a civil engineering professor and professional engineer, and Dr. Shawn P. Young, a fisheries biologist. *See* Tr. at 1567-1631.

4.180 Dr. Hayes earned both a Bachelor of Science and a Master of Science in Civil Engineering from Mississippi State University and a Ph.D. in Civil Engineering with emphases in Environmental Engineering and Water Resources Planning and Management from Colorado State University. He is currently employed as the Director of the Institute for Coastal Ecology and Engineering and is an Endowed Professor of Civil Engineering at the University of Louisiana at Lafayette. He is a registered Professional Engineer in the State of Mississippi and a Board Certified Environmental Engineer by the American Academy of Environmental Engineers. Dr. Hayes has over 27 years of experience as an engineer, much of it related to dredging and associated impacts. He also serves on the Board of Directors of the Western Dredging Association. *See* Hayes EC 6.0 Direct Testimony at 1-2; Exh. JTIR20041, at unnumbered page 1 (Declaration of Donald Hayes (Sept. 21, 2008)); see also Exh. JTIR00045 (CV of Donald Hayes).

4.181 Dr. Young's background and expert qualifications are discussed in connection with EC 1.2 in section IV.A.1.c, *supra*.

4.182 Based on the foregoing, and the respective background and experience of the witnesses, the Board finds that each of these witnesses is qualified to testify as an expert witness relative to the analysis of likely impacts from any dredging of the Savannah River federal navigation channel necessary for construction of proposed Vogtle Units 3 and 4.

3. Factual Background for Contention EC 6.0

4.183 SNC has stated that "the optimal and desired method of delivery of heavy components to the Plant Vogtle Units 3 [and] 4 construction site [is] via barge." Neubert/Smith/Scott EC 6.0 Direct Testimony at 3. This is because, in SNC's estimation, barge delivery is "the most efficient and cost-effective method of delivery," *id.* at 4, considering that these components likely will be manufactured overseas and will arrive in the United States via ship, and, as SNC witness Mr. Neubert explained, traveling as far as possible by water with such components is generally preferred. *See* Tr. at 1340-41. SNC plans to transport only the heavy components (such as the reactor vessel and steam generators) via barge, with the other construction components likely being transported by rail or highway. *See* Tr. at 1319-20. SNC currently estimates thirty to sixty barge shipments for the heavy components. *See* Tr. at 1322.

4.184 The proposed barge shipments will travel through a portion of the Savannah River downstream from the VEGP site known as the federal navigation channel, which is under USACE jurisdiction. *See* FEIS 1A, at 4-27. USACE has the authority to maintain the channel to a depth of 9 feet by a width of 90 feet to

enable river navigation, but has not maintained the channel since 1979. *See id.*; Tr. at 1338, 1463.

4.185 Because of this gap in maintenance dredging, federal and state authorities and citizens groups provided comments on the Staff's DEIS that indicated the Staff should consider the impacts of potential dredging of the channel in the Staff's environmental review process. *See* FEIS 1C, at E-55 to -57. This resulted in the Staff's inclusion of a brief discussion in the Cumulative Impacts section of the FEIS and a Staff conclusion that any impacts from dredging could be MODERATE. *See id.* at E-58; FEIS 1B, at 7-20 to -21. The adequacy of the Staff's analysis and the purported lack of reasoning behind the Staff's conclusion were subsequently challenged by Joint Intervenors and became one of the subjects of this contention. The other aspect of the contention concerns the Staff's decision not to include a discussion of any water releases from upstream reservoirs that Joint Intervenors allege will be made to otherwise support the navigation of SNC barges through the federal navigation channel.

4.186 As an initial matter, it is useful to outline the SNC options relative to use of the federal navigation channel and the process that would follow a decision to pursue any one of the options. SNC has three options if it plans to use the federal navigation channel for the transportation of construction components to the Vogtle site: (1) proceed without dredging, relying on the flow of the Savannah River to enable barging; (2) request that the USACE perform maintenance dredging of the federal navigation channel pursuant to its authority; or (3) request a permit from USACE for SNC to perform its own dredging of the federal navigation channel. *See* Tr. at 1346-47.

a. Barging Without Dredging

4.187 If SNC makes the determination that it will transport at least some of the construction components by barge, but decides that it will not pursue dredging of the federal navigation channel and, instead, will rely on the flow of the Savannah River, SNC will be limited in its use of the channel to periods of time when the flow is sufficient to accommodate barging of its components. Witnesses from USACE and the Staff acknowledged that one of the barge shipments on the Savannah River within the past 10 years, a Chem Nuclear shipment of contaminated reactor vessels to Barnwell, South Carolina (which involved the transport of a 700-ton payload on a 200- by 40-foot barge with a draft of about 5.5 feet), required a flow of about 10,000 cubic feet per second. USACE EC 6.0 Direct Testimony at 5; Staff EC 6.0 Direct Testimony at 9; Tr. at 1438-40. According to USACE, this shipment was roughly equivalent to what would be required to ship a steam generator, the largest component that will be transported

to the VEGP site for proposed Units 3 and 4.⁴⁸ *See* Tr. at 1439-40. According to SNC witnesses, a flow of 10,000 cubic feet per second would be in excess of what is needed to ship a steam generator.⁴⁹ *See* Tr. at 1327-28.

4.188 As of the date of the evidentiary hearing, given that the Savannah River has been in drought condition, the river flow was at a level where barging of large industrial components would not be feasible without dredging. *See* USACE EC 6.0 Direct Testimony at 5. The flow of the river as of January 5, 2009, was 3790 cfs based on data from the United States Geological Survey Augusta gauge. *See* Neubert/Smith/Scott EC 6.0 Direct Testimony at 9. USACE witness Mr. Simpson indicated, however, that the river flow could change in a relatively short period of time following precipitation, which could involve a transition from a drought to a flood. Mr. Simpson testified that the transition out of the 1998 to 2003 drought occurred in about 2 to 3 months. *See* Tr. at 1442-43.

4.189 Although SNC will not need USACE permission for navigation prior to a barge shipment that can be accomplished without dredging (or, indeed under either of the two dredging scenarios delineated in section IV.C.3 above once the channel has been adequately dredged), if SNC wants USACE to release water from the reservoirs upstream from the VEGP site, this must be coordinated with USACE. *See id.* If drought conditions were not present, as they were at the time of the hearing, USACE would attempt to accommodate such a request, and “would release as little [water] as [necessary] . . . to provide that service.” Tr. at 1445. The amount of water necessary is determined ahead of time by the pilot who will be handling the trip or by USACE’s review of its gauges at various locations on the river, although USACE does not have the duty to ascertain the status of the navigation channel. *See* Tr. at 1444-46.

4.190 The Chem Nuclear barge shipment discussed above involved a release by USACE and serves as an example of what is required for a release. *See* Tr. at 1441. USACE “had to water up the river about a week in advance,” and “keep it watered up while they transport[ed] their barge up, off-load[ed] it, turn[ed] it around and ship[ped] it back,” which took roughly a 2-week period. Tr. at 1439. This has occurred about three or four times in the last 20 years. *See id.* In other instances, when there is enough water stored in the flood control pools, water can be released for the duration required for a barge shipment without requiring USACE “to do anything out of the ordinary.” Tr. at 1441. In these instances,

⁴⁸ Compare USACE EC 6.0 Direct Testimony at 5, and Tr. at 1439-40, with Neubert/Smith/Scott EC 6.0 Direct Testimony at 5.

⁴⁹ Although SNC witnesses indicated that the Chem Nuclear shipment had a somewhat higher payload that required a greater barge draft, *see* Tr. at 1327-28, this does not diminish the relevance of their testimony regarding the sufficiency of a 10,000-cfs flow for the Vogtle steam generators. If sufficient for what might have been a somewhat larger load, such a 10,000-cfs flow would be more than enough for a (relatively) lighter component.

USACE stores water in its flood control pools after a “high storm event, high inflow event” and then “release[s] it at a non-damaging rate rather than just passing the storm on through.” Tr. at 1441-42. Additionally, in the past, when USACE knew ahead of time that a shipment was planned, USACE stored water in the flood control pools to provide enough water for the shipment. *See* Tr. at 1440.

4.191 Prior to making such a release, USACE will consider environmental concerns that might be identified by resource agencies. *See* Tr. at 1451. For example, relative to a release, USACE witness Mr. Simpson explained that “[w]e have concerns about the way we make the release, the time that we make the release[, or i]f it’s a spawning season or that time of year.” Tr. at 1447. This would be done in accordance with USACE’s current authority and likely would not require a new NEPA analysis. *See* Tr. at 1451-52. Nonetheless, because of the drought, USACE is currently operating pursuant to its Drought Contingency Plan, under which it will not release water from its reservoirs to facilitate barge shipments. *See id.*

b. Request for USACE to Conduct Maintenance Dredging

4.192 Alternatively, assuming SNC decides that it will transport at least some of the construction components by barge, it might choose to request that USACE conduct maintenance dredging pursuant to USACE’s current authority to dredge the federal navigation channel. SNC indicated that this would be the preferred option if dredging were determined to be necessary. *See* Tr. at 1315-16, 1373.

4.193 At the evidentiary hearing, USACE described in detail the steps that would need to be taken to resume maintenance dredging of the channel. USACE has the authority to perform maintenance dredging of the federal navigation channel to enable transportation. *See* FEIS 1A, at 4-27. USACE has been authorized to maintain the channel to a depth of 9 feet and a width of 90 feet. *See id.* The last time USACE dredged the channel, however, was in 1979, approximately 30 years ago. *See id.* Since that time, sediment has settled in the channel, and trees and snags, or woody debris, have accumulated, changing the depth and width of the channel. Based on a survey commissioned by SNC and performed in July 2008, SNC estimates that a total of 36,500 cubic yards of dredged material and 277 snags and trees would need to be removed from the 110-mile stretch of river between the mouth of the Savannah River and the VEGP facility to enable barge transportation on a barge 220 feet in length by 55 feet in width carrying 730 tons of cargo with a 5.5-foot draft. *See* Neubert/Smith/Scott EC 6.0 Direct Testimony at 5; Tr. at 1321. USACE stated that it does not have the funds to review the survey commissioned by SNC, although it acknowledged that it was aware of the SNC survey. *See* Tr. at 1457.

4.194 Although USACE has the authority to dredge the federal navigation channel, it currently does not have the funds to resume maintenance dredging. *See* Tr. at 1411, 1452-53; USACE EC 6.0 Direct Testimony at 9. To request funds, USACE would need to develop a budget request that would be submitted at the district level, then the regional level, and then the national level as the President's budget proposal to Congress. *See* Tr. at 1409-10. At each level, proposed projects are ranked against each other and are in competition for funding with other projects. *See* Tr. at 1410. The budget "process typically takes [eighteen] months." *Id.* To give an idea of how far in advance the process is initiated, USACE will soon begin work on its budget for fiscal year 2011, which begins in October 2010. *See* Tr. at 1419.

4.195 USACE witness Mr. Maciejewski explained, however, that funds are normally requested when there are at least two users of the channel. *See* Tr. at 1461; *see also* Tr. at 1448-49. Accordingly, with SNC being considered one user, it normally would require another user also to request that the channel be dredged before USACE will consider dredging. *See* Tr. at 1448. Mr. Maciejewski also stated that he believed USACE had made funding requests to dredge the channel since 1979, but that they were out-competed by other projects. *See* Tr. at 1461-63.

4.196 An alternative to initiating a funding request would be if Congress directed the USACE to resume maintenance dredging and appropriated the funds. Tr. at 1419-20.

4.197 Aside from the initial funding needed for conducting the maintenance dredging, because the channel has not been maintained since 1979, the USACE might be required to perform an environmental assessment (EA) or an EIS prior to resuming maintenance, which likely will require additional funds as well as additional time to complete the environmental review process. *See* Tr. at 1453-54; *see also* Tr. at 1398 (stating EIS process takes approximately 2 years to complete). The environmental review process in this instance is similar to that for permit applications, *see infra* section IV.C.3.c, in which public comment is elicited on the proposed project, members of the public have an opportunity to request a hearing or otherwise participate in the review process, and an EA or an EIS is produced. *See* Tr. at 1412-15.

4.198 Furthermore, because this is an "older project," an additional time consideration for maintenance dredging likely would be the necessary review of any "real estate actions," or anything having to do with real estate, to ensure that USACE and its dredging contractor have access to disposal sites, parking for workers, and storage for supplies. *See* Tr. at 1455-56. Mr. Maciejewski stated that this process "might be quite time intensive." Tr. at 1456.

c. Request for a Permit for SNC to Perform Dredging

4.199 Finally, assuming SNC were to decide that it will transport at least

some of the construction components by barge, it might choose to apply for a permit from USACE for SNC to perform the federal navigation channel dredging. If that is the case, SNC would need to provide USACE with a complete application and be prepared to provide any additional information USACE requires, such as sediment testing. *See* Tr. at 1393-94. In addition, SNC would need to ensure that any other project for which a permit would be required that is sufficiently related to the dredging request is also included in its application at that time. This is because USACE regulations prohibit segmentation, or deliberate attempts to submit piecemeal requests to make a project appear smaller than it is. *See* Tr. at 1402-03. Because SNC plans to dredge parts of the river for a barge slip and the intake and discharge structures for its Vogtle Units 3 and 4 cooling system, for which USACE anticipates SNC will apply for a permit in winter 2009, *see* USACE EC 6.0 Direct Testimony at 7, these projects likely would have to be included with any project to dredge the channel in one complete application to avoid segmentation, and this process could delay permit issuance. *See* Tr. at 1346, 1348, 1402-03; USACE EC 6.0 Direct Testimony at 7. For this reason, the permit option likely is the least desirable for SNC. *See* Tr. at 1314-16, 1348.

4.200 USACE described the permit application process in detail during the evidentiary hearing. Once an application for a dredging permit is received, it is reviewed for completeness and a public notice is issued with a 30-day period for comment on the proposed project. *See* Tr. at 1394, 1397. The comment period might be extended up to 90 days at the request of other federal and state agencies that wish to provide comments. *See* Tr. at 1397. USACE then performs a NEPA analysis of the proposed project. Over the course of its review, USACE might seek additional information from the applicant in order for it to make its permit decision. *See* Tr. at 1399. If USACE issues an EA with a “Finding of No Significant Impact,” it will proceed to a permit decision without an additional comment period. *See* Tr. at 1398. If it determines that an EIS is necessary, either from the EA process or at the outset of its review of the application, an additional public involvement process ensues, which can take approximately 2 years to complete. *See id.* The need to produce an EIS could also add additional time to the permit decision process because the Regulatory Division that handles permitting typically is not funded to conduct its EIS process. *See* Tr. at 1421. USACE witness Ms. Bernstein explained that the Regulatory Division “ha[s] to go to headquarters and ask for that funding usually a year ahead . . . to give them a heads up and say, ‘we’ve got this coming down, and put us in the budget for this EIS for this project.’” *Id.* She also indicated that the applicant will pay for the EIS. *See id.*

4.201 For certain projects, any member of the public may request a public hearing, although these are not often held. At a public hearing, the District Engineer presides and testimony is taken in the presence of a court reporter. More often USACE will hold a workshop, or request that the applicant hold a

workshop, which is a less formal forum for allowing public participation than the public hearing. *See* Tr. at 1400.

4.202 If issued, the permit likely would contain specific information about the areas authorized for dredging, the method of dredging, and the disposal areas, but would allow for some flexibility for the permit holder to “adaptively manage” the project. Tr. at 1404, 1406. The permit might also contain certain conditions, if, after its environmental review, USACE determines them to be necessary. *See* Tr. at 1404-05; USACE EC 6.0 Direct Testimony at 7-8. For example, USACE could place restrictions on dredging where cultural resources are found, restrict the time of year dredging is conducted, limit the type of dredge, or limit the disposal area. *See* Tr. at 1404-05. Generally the permit would be valid for 5 years, with an opportunity to request an extension. *See* Tr. at 1403. USACE will also conduct a compliance inspection at some point after the permit is issued and work begins on the project. *See* Tr. at 1405.

d. Barging Not Used for Transportation

4.203 The three options discussed above all assume that SNC will decide to barge at least some of the construction components for Vogtle Units 3 and 4. After reviewing its options, however, SNC could forego barging altogether and decide to transport its components solely by rail or by truck. *See* Tr. at 1315. SNC witness Mr. Neubert testified that in his employment for Westinghouse Electric Company he was required to analyze “at least two viable delivery methods for every component that goes into the AP1000,” Tr. at 1320, and stated that “[w]e are absolutely certain that we will be able to deliver all the components to the site even without the barge delivery for Vogtle.” Tr. at 1321.

4. Staff’s FEIS Methodology Regarding Dredging-Related Impacts

4.204 After receiving comments on the DEIS from federal and state resource agencies as well as members of the public regarding the possibility of dredging, the Staff determined that the potential impacts associated with dredging were “worthy of mention,” Tr. at 1497, in the Cumulative Impacts section of the FEIS. Staff EC 6.0 Direct Testimony at 5-6, 11. The Staff, pursuant to the definition of cumulative impacts provided in CEQ regulations and the Staff’s environmental review guidance document, “determined this was the appropriate section for the discussion of dredging because the action of dredging the Federal navigation channel in the Savannah River is not under the NRC’s jurisdiction and would require a separate review under [NEPA].” *Id.* at 11-12.

4.205 At the time the Staff incorporated this analysis into the FEIS, little information was available as to what SNC’s plans were in terms of transporting

its components via barge and any dredging of the river that would be required to enable transportation. *See id.* at 7-8, 10; Staff EC 6.0 Rebuttal Testimony at 3-4; FEIS 1A, at 4-27. The Staff held informal discussions with SNC and with members of the USACE both prior to and after issuance of the DEIS. *See* Staff EC 6.0 Direct Testimony at 7-8. In these discussions, SNC “stated that the Corps had a mandate to maintain the Federal navigation channel,” while members of the USACE “stated that while the Corps had authorization for maintaining the Federal navigation channel, the channel had not been maintained for decades and Congress would need to provide funding before maintenance dredging could resume.” *Id.* at 8. USACE officials also indicated in these discussions that SNC had not made any formal request for dredging the federal navigation channel. *See id.* at 8. Based on these discussions, the Staff “did not believe that dredging for the Federal navigation channel was expected to occur.” *Id.* at 7; *see also id.* at 8 (“The staff determined that it was unlikely that dredging of the Federal navigation channel would occur and certainly not within any short-term time frame”).

4.206 The Staff also assumed that there would be other options that SNC could pursue. The Staff, based on informal conversations with USACE, “believe[d] that large components could be barged during periods of naturally occurring high flow” without dredging. *Id.* at 8. Moreover, the Staff assumed that there were other available transportation options besides barging — road and rail transportation, for example. *See id.* at 7.

4.207 Because of the limited information available to the Staff and the uncertainty over whether (1) the AP1000 components would be barged; and, if so, (2) the channel would need to be dredged to enable barging, the Staff performed a qualitative analysis of the impacts of the dredging project. *See* Staff EC 6.0 Rebuttal Testimony at 3. The Staff emphasized that “[w]ithout project-specific information for such a potentially large-scale dredging project (one that indeed may change in scope after review by the resource and regulatory agencies or not occur at all), the Staff could not conduct a meaningful quantitative assessment.” *Id.* at 3; *see also id.* at 4. Despite the limited information available, “based on the Staff’s familiarity with previous dredging projects, the Staff determined that a qualitative analysis to identify the types of potential environmental impacts likely to occur with such a project was appropriate.” *Id.* at 3.

4.208 To perform the qualitative analysis, the Staff drew upon the experience of Ms. Kuntzleman, who for almost 20 years served as a biologist for the Department of the Navy, Engineering Field Activity Northeast, where she “worked on very complex, controversial, and environmentally sensitive dredging projects” located throughout the northeast. Staff EC 6.0 Direct Testimony at 13-14. The Staff also relied on its understanding of USACE’s environmental review process and the types of considerations that USACE would take into account regarding either resuming maintenance dredging or approving a permit for SNC to perform

the dredging, with the understanding that dredging will have to comply with state water quality standards. *See id.* at 16-18.

4.209 Given that there was a limited amount of information available regarding the possibility of dredging the channel, the Staff had to assume certain conditions in order to perform its analysis. Although “[t]here were orders of magnitude of possible volumes of dredging,” Tr. at 1546, the Staff assumed that the channel would be dredged to a depth of 9 feet and a width of 90 feet, *see* Tr. at 1487, 1546, and that “depending on the level of water flow, most areas of the Federal navigation channel above rkm 56 (RM 35) would likely need to be dredged to allow barge traffic during normal river flow.” FEIS 1A, at 4-27.

4.210 In the FEIS and in its testimony provided at the evidentiary hearing, the Staff outlined the types of impacts that might result from dredging the federal navigation channel or disposing of the dredged material and mitigating measures to minimize such impacts. *See* FEIS 1B, at 7-20; Staff EC 6.0 Direct Testimony at 13-15, 20-21.

a. Types of Impacts on Aquatic Biota

4.211 In terms of the potential impacts on aquatic biota as a result of dredging or disposing of dredged material, the Staff stated that dredging the federal navigation channel “would likely have an effect on aquatic organisms for most trophic levels.” Staff EC 6.0 Direct Testimony at 13. Based on “the general types of potential adverse environmental effects [Ms. Kuntzleman] ha[s] evaluated with previous dredging projects,” Staff EC 6.0 Direct Testimony at 14, dredging could result in a “destruction of benthic habitat, disruption of spawning migrations, . . . and the direct (e.g., toxicological) and indirect (e.g., habitat alteration) effects on fish and their prey species.” Staff EC 6.0 Direct Testimony at 14. The Staff elaborated that

[m]aintenance dredging may result in adverse effects to benthic habitat either by direct removal of the benthic substrate by the dredging operation itself, or via disposal of the dredged material onto the benthic habitat at the disposal site. Various fish species can also lose a source of forage from removal of benthic macroinvertebrates within the dredged area. Sediment disturbance can also impact fish spawning, egg and larval development, and juvenile survivorship.

Id. at 15.

b. Types of Impacts on Water Quality

4.212 In terms of potential impacts on water quality from dredging and disposal of dredged material, the Staff stated that

[w]ater quality impacts . . . include physical, chemical, and biological impacts. Physical impairment of the water column occurs from changes in dissolved oxygen, pH, oxidation-reduction state, and turbidity with a resultant decrease in light penetration. Chemical impairment is caused by release of various chemical contaminants that may occur within the sediment. Biological impairment can occur when introduction of dredged material into the water column kills submerged aquatic vegetation and macroalgae (either through direct smothering or via impaired light penetration) leading to higher rates of bacterial decomposition and a resultant increase in bacterial oxygen demand.

Id.

c. Disposal of Dredged Material

4.213 According to the Staff, the amount of dredged material and the locations for, and method of, disposing of dredged material could not be identified based on the limited information available regarding SNC's plans to transport the heavy components to the VEGP site. *See* FEIS 1A, at 4-27; FEIS 1B, at 7-20; Tr. at 1534-35. The Staff, however, did take into account the potential impacts of dredged material disposal when discussing the impacts to aquatic biota and water quality that are outlined above. *See* Staff EC 6.0 Direct Testimony at 15. The Staff also noted at the hearing that USACE likely would use upland disposal locations rather than the in-water placement method that was employed in 1979 when the channel was last maintained. *See* Tr. at 1535. The Staff indicated that the eventual review of the upland dredge disposal locations, would "get down to a level of detail" of evaluating "the access road into the disposal site" as well as the disposal areas "to make sure there were no wetlands or endangered species there." Tr. at 1536.

d. Mitigation Measures

4.214 Based on the Staff's understanding of typical USACE environmental review practice, the Staff believed that any adverse environmental impacts as a result of dredging or disposal of dredged material would be mitigated or minimized through appropriate steps taken by USACE. *See* Staff EC 6.0 Direct Testimony at 17. Regarding impacts to aquatic biota, the Staff assumed that after consultation with "Federal resource agencies, including the U.S. Fish and Wildlife Service . . . and National Marine Fisheries Service" and coordination with state regulatory and resource agencies over "where the dredging and dredged material disposal would occur," biota at risk would be identified. *Id.* The agencies would then "determine the time of the year the areas proposed for maintenance dredging would be used by important species (e.g., birds, fish, macroinvertebrates) for

breeding, foraging, rearing, or migration.’’ *Id.* Accordingly, USACE ‘‘would likely be required to avoid dredging activities during peak reproductive and migratory activities, and seasonal restrictions (or environmental windows) would be established by the Federal and state resource agencies for the project.’’ *Id.*

4.215 If there are endangered mussel species present in a proposed dredging area, relocation of mussels might be a last resort option; otherwise, every effort likely would be made ‘‘to minimize the amount of dredging in that area.’’ Tr. at 1535-36; *see also* Staff EC 6.0 Direct Testimony at 22. Relocation of mussels is a last resort option because the success of relocation depends on the experience level of the person conducting the relocation, the time of year, and the weather conditions. *See* Tr. at 1536.

4.216 With regard to mitigation of potential water quality impacts, the Staff explained that ‘‘if dredging were conducted, by employing best management practices, impacts to water quality would be minimized and the water quality of the Savannah River would return to pre-project conditions.’’ Staff EC 6.0 Direct Testimony at 21. These best management practices include

selection of the proper dredge type and/or size, use of a sealed or environmental bucket for mechanical dredging, deployment of silt curtain containments, use of sheet pile enclosures, management of barge overflow, and control of sediment loss from bucket to barge as well as from the barge to the upland offloading location.

Id. Time-of-year restrictions on dredging could also reduce water quality impacts, *see id.*, as could any water quality restrictions that are put in place by the states of Georgia and South Carolina under the Clean Water Act, *see id.* at 18. For example, ‘‘Georgia and South Carolina likely would require implementation of a water quality monitoring plan, and violation of state water quality standards would not be permitted to occur beyond a designated mixing zone.’’ *Id.*

4.217 The Staff cautioned that these mitigation measures were discussed ‘‘as examples only and not as specific recommendations . . . because there was (and is) no formal request or permit application to dredge the Federal navigation channel before the Corps for its review.’’ *Id.* at 20.

e. Staff’s Conclusion Regarding Cumulative Impacts of Dredging

4.218 After making the above observations regarding potential impacts to aquatic biota, water quality, and possible mitigation measures, the Staff concluded ‘‘that the cumulative impacts to aquatic organisms in the region from the construction including dredging of a navigation channel could be MODERATE, depending on the type of mitigation.’’ FEIS 1B, at 7-20. As we noted previously, ‘‘MODERATE’’ is defined as ‘‘[e]nvironmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.’’

FEIS 1A, at 1-4. In the Staff's view, this was a conservative assessment of the potential impacts given the Staff's "anticipat[ion] that the Federal and state regulatory and resource agencies responsible for reviewing the dredging project would require project-specific mitigation measures to ensure that the cumulative impacts to aquatic organisms in the region would not be LARGE," Staff EC 6.0 Direct Testimony at 18-19; *see also id.* at 22, 24, which is defined as "clearly noticeable" environmental effects that "are sufficient to destabilize important attributes of the resource." FEIS 1A, at 1-4. Instead, according to the Staff, it was likely that the impacts could be "up to" MODERATE, and even could be SMALL, but the selection of MODERATE represented a range of possibilities without more specific information. Tr. at 1525-26. In making its MODERATE finding, the Staff noted that "these impacts would be evaluated in more detail in the NEPA analysis that would need to be conducted by the USACE." FEIS 1B, at 7-21.

5. Parties' Arguments Regarding Dredging-Related Impacts

4.219 The Staff and SNC both argue that because it is speculative whether the channel will need to be dredged, a cumulative impacts analysis of dredging is not required under NEPA to be included in the Staff's FEIS. *See* Staff Proposed Findings at 83; SNC Proposed Findings at 92. Alternatively, both argue that even assuming such an analysis were required, the Staff's review is sufficient to satisfy NEPA requirements because USACE will ultimately identify potential impacts and potential mitigation measures that will ensure any impacts are not greater than MODERATE. *See* Staff Proposed Findings at 84, 96-100; SNC Proposed Findings at 92-93.

4.220 Joint Intervenors maintain that dredging is not speculative. To the contrary, Joint Intervenors conclude that SNC has planned to barge some of its components, that no dredging of the federal navigation channel would occur but for SNC's barging needs, and that the NRC Staff thus is required to provide a direct impacts analysis of such dredging. *See* Joint Intervenors Reply Findings at 14-15. In the alternative, assuming that a direct impacts analysis is not required, Joint Intervenors argue that a cumulative impacts analysis is required, and that the Staff's cumulative impacts analysis was insufficient to provide the "hard look" that NEPA requires. *See id.* at 14, 33-36. Joint Intervenors take issue with the Staff's " cursory treatment" of the impacts of dredging based on the Staff's assumption that dredging "impacts would be evaluated in more detail" by USACE. *See* JTI Proposed Findings at 36 (quoting FEIS 1B, at 7-21).

4.221 Specifically, Joint Intervenors challenge several aspects of the Staff's analysis. First, Joint Intervenors demand a quantitative analysis of the impacts of dredging, with the Staff required to provide a range of possibilities of potential impacts related to a range of possible volumes of dredged material. *See* Hayes

EC 6.0 Direct Testimony at 6. Second, Joint Intervenors insist that site-specific studies should be provided with regard to the presence of aquatic biota in proposed dredging locations. *See* Young EC 6.0 Direct Testimony at 5; Young EC 6.0 Rebuttal Testimony at 4. Third, Joint Intervenors argue that sediment management should be explored, particularly the potential for contaminated sediments and any impacts associated with disposal of dredged material. *See* Hayes EC 6.0 Direct Testimony at 5-6.

6. Legal Background for EC 6.0

4.222 As discussed more fully in section III.A, *supra*, NEPA imposes procedural restraints on an agency, calling for the agency to take a “hard look” at the environmental impacts of a proposed action, as well as reasonable alternatives to that action. *See Claiborne*, CLI-98-3, 47 NRC at 87-88. This “hard look” is, however, subject to a “rule of reason” in that the consideration of environmental impacts need not address every impact that could possibly result, but rather only those that are reasonably foreseeable or have some likelihood of occurring. *See, e.g., Shoreham*, ALAB-156, 6 AEC at 836. Agencies are given broad discretion in determining how thoroughly to analyze a particular subject, *see Claiborne*, CLI-98-3, 47 NRC at 103, and may decline to examine issues the agency in good faith considers “remote and speculative” or “inconsequentially small,” *Vermont Yankee*, ALAB-919, 30 NRC at 44 (citing *Limerick Ecology Action*, 869 F.2d at 739).

4.223 In implementing NEPA, the NRC uses the definitions provided in CEQ regulations. 10 C.F.R. § 51.14(b). The CEQ regulations state that an agency EIS must consider direct, indirect, and cumulative impacts of an action. *See* 40 C.F.R. § 1508.25. Direct impacts are those caused by the federal action, and occurring at the same time and place as that action, while indirect impacts are caused by the action at a later time or more distant place, yet are still reasonably foreseeable. *See id.* § 1508.8. Cumulative impacts are defined as:

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.

Id. § 1508.7. This definition is also provided in the NRC’s ESRP, which as we have discussed previously, *see* section IV.A.4.a.i, *supra*, is a guidance document the Staff uses for its environmental review. *See* Staff EC 6.0 Direct Testimony at 12. If impacts are remote or speculative, the EIS need not discuss them. *See Vermont Yankee*, 435 U.S. at 551.

4.224 For impacts that are reasonably foreseeable, but for which the agency lacks complete information in its analysis, the agency must indicate that such information is lacking. *See* 40 C.F.R. § 1502.22. Significantly, the unavailability of information does not “halt all government action.” *Sierra Club v. Sigler*, 695 F.2d 957, 970 (5th Cir. 1983). “This is particularly true when information may become available at a later time and can still be used to influence the agency’s decision.” *Id.*

4.225 Joint Intervenors focus on the types of actions that an EIS must consider. They argue that dredging the Savannah River federal navigation channel is a connected action to the proposed ESP, and they therefore conclude that it must be addressed with a direct impacts analysis, or alternatively, a cumulative impacts analysis. Under section 1508.25 of the CEQ regulations, which defines the term “connected action,” the types of impacts that are to be considered are outlined separately from the types of actions that are to be considered. *See* 40 C.F.R. § 1508.25. This indicates that each type of action and each type of impact has its own independent significance in the sense that a conclusion that something is a “connected action” does not necessarily inform the type of impacts analysis that is performed, whether direct, indirect, or cumulative. *See id.* § 1508.25 (“To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts”). That being the case, the Board rejects Joint Intervenors argument that a direct impacts analysis should have been performed in lieu of a cumulative impacts analysis.

4.226 Finally, with regard to the parties’ arguments as to whether an analysis need be included in the FEIS at all based on the foreseeability of dredging the federal navigation channel — i.e., the Staff’s and SNC’s arguments that dredging is not reasonably foreseeable and an analysis need not be included, and Joint Intervenors argument that dredging is reasonably foreseeable and an analysis must be included — the Board finds in these circumstances that it need not address these arguments, but will instead focus in the first instance on the sufficiency of the Staff FEIS discussion that was provided regarding the impacts of any potential dredging.

7. Adequacy of Staff’s Conclusion Regarding Cumulative Impacts of Dredging

4.227 Based on the Staff’s qualitative review discussed above, the Board finds that the Staff’s conclusion that the cumulative impacts as a result of dredging the federal navigation channel could be MODERATE is a reasonable, adequately supported, conservative conclusion given the limited information available regarding the nature and extent of any dredging.

4.228 As discussed above, the Staff included the cumulative impacts analysis in the FEIS in response to comments received on the DEIS regarding possible

dredging of the federal navigation channel. The Staff was limited to a discussion of potential impacts and possible mitigation measures and an assumption that the channel would be dredged to a depth of 9 feet and a width of 90 feet. As of the date of the evidentiary hearing and of this decision, as far as the Board is aware there has been no change in the amount of information available regarding SNC's intent with respect to dredging — SNC has not made a formal request that USACE resume maintenance dredging, nor has SNC filed a permit application with USACE. *See, e.g.*, USACE EC 6.0 Direct Testimony at 10. Nevertheless, the Staff's analysis and MODERATE conclusion comport with SNC's testimony regarding the potential extent of dredging the federal navigation channel and any impacts associated with dredging as well as USACE's testimony regarding its eventual review of any dredging-related impacts. Thus, for the reasons outlined below, the evidentiary record amply supports the Staff's conclusion that the cumulative impacts associated with dredging could be MODERATE.

a. Extent of Dredging

4.229 For the purposes of transporting the largest construction component — one of the steam generators — a barge measuring 220 feet in length and 55 feet in width would be required. *See* Neubert/Smith/Scott EC 6.0 Direct Testimony at 5. “The expected operational draft of a barge of this size loaded with one steam generator would be 5½ feet.” *Id.* With a barge of these dimensions and this operating draft, and with the preliminary survey of the federal navigation channel that SNC commissioned, SNC determined that there were “[eight] locations along the Savannah River where a total of only approximately 36,500 cubic yards of dredged material would need to be removed.” *Id.* at 4. This volume of dredged material assumes that the eight locations will be dredged to a depth of 6 feet, which will accommodate the barge draft and ½ foot of under-keel clearance. *See id.* at 8.

4.230 Joint Intervenors are concerned that SNC underestimated the depth necessary for safe navigation and therefore underestimated the volume of dredged material. *See* Hayes EC 6.0 Rebuttal Testimony at 3. Joint Intervenors suggest that “[a] dredging depth of [seven] feet or greater is probably more realistic.” *Id.* The USACE could not confirm whether 36,500 cubic yards would be a realistic estimate of the volume of dredged material. *See* Tr. at 1426. Even assuming, however, that 7 feet would have been more appropriate, this does not adversely affect the Staff's MODERATE conclusion. If anything, because the Staff assumed that the channel would be dredged to a depth of 9 feet, this would serve to support the finding that the Staff's MODERATE conclusion was conservative. *See* Tr. at 1546. Moreover, the amount of dredging required could be less, depending on the flow of the river at the time any dredging is conducted. Because SNC's survey was conducted when the river was in drought conditions with an assumed flow

rate of about 3700 cfs, *see* Neubert/Smith/Scott EC 6.0 Direct Testimony at 8, SNC's estimated dredged material volume was itself a conservative estimate.

b. Impacts on Aquatic Biota and Water Quality from Dredging and Tree/Snag Removal

4.231 It is important to note, however, that despite the possibility that the volume of dredged material likely will be much smaller than what the Staff originally assumed in preparing its FEIS, this does not answer the question of the impacts to aquatic biota in the eight SNC-identified locations for dredging. *See* Tr. at 1547. As Joint Intervenors witness Dr. Young opined, “[e]ven if only one mile of river is dredged, the dredged areas may be hotspots of high abundance for benthic organisms,” or the dredging “may change flow velocity or location of the thalweg which in turn may then cause changes in habitat.” Young EC 6.0 Rebuttal Testimony at 1. As discussed below, SNC witnesses provided testimony that further supported the Staff’s conclusion in this regard — establishing by a preponderance of the evidence that such impacts likely would not be greater than MODERATE.

i. FRESHWATER MUSSELS

4.232 In the interest of further understanding potential impacts to freshwater mussels, Joint Intervenors claim that “a thorough freshwater mussel survey for the entire affected area should be completed” including “a thorough discussion of each mussel species’ life history.” Young EC 6.0 Direct Testimony at 5. Studies proffered by SNC and the Staff, however, indicate that the habitats identified for dredging are not favored habitats for mussels. The locations that SNC identified for dredging are primarily in the Savannah River shifting sand habitats. *See* Tr. at 1350. A study conducted on the Pee Dee River that involved a comprehensive survey of mussel habitats and “spent much more time on the shifting sand habitats that would be the subject of dredging here,” *id.*, concluded that “[m]uch of the habitat in the center of the channel . . . is of poor quality for freshwater mussels due to unstable, shifting sediment. The best mussel habitat in these rivers is often restricted to narrow troughs, usually within the thalweg [(the deepest part of the channel), Tr. at 1351,] adjacent to river banks.” Exh. SNC000066, at 30 (Freshwater Mussel Surveys of the Pee Dee River Basin in South Carolina (Jan. 3, 2006)).

4.233 SNC witness Dr. Coutant testified, *see* Tr. at 1350-51, that this finding was consistent with the mussel survey conducted on the Savannah River that was cited by Joint Intervenors as “the most recent information available about the mussel species of the Savannah River,” Young EC 6.0 Rebuttal Testimony at 3. The Savannah River survey reached the same conclusion as the Pee Dee survey,

i.e., that “[i]n general, mussels were most abundant in the thalweg at the base of the river bank, and rare or absent in the shifting sand dominated runs in the center of the channel.” Exh. Catena Group Mussel Surveys at 5. Because mussel species were not likely to be found in the potential dredge areas, Dr. Coutant thus concluded that the impacts on mussel species as a result of dredging likely would be small. *See* Tr. at 1354.

4.234 Joint Intervenors assert that Dr. Coutant was incorrect to rely heavily on the Pee Dee River survey as opposed to the Savannah River survey because the dredging will take place on the Savannah River. *See* Young EC 6.0 Rebuttal Testimony at 3. The Savannah River survey, however, was not as comprehensive as the Pee Dee River survey and focused on the deep water habitats rather than those similar to the potential dredged areas identified by SNC. *See* Tr. at 1350. Because the Pee Dee River survey focused on areas similar to the potential dredge areas and both surveys reached the same conclusion, the Board finds Dr. Coutant was not incorrect to rely on the Pee Dee River survey.

4.235 Although Joint Intervenor witness Dr. Young initially disagreed with the SNC interpretation of the studies, explaining that several species of mussels were collected in an area that he believed to be a shifting sand habitat, *see* Tr. at 1599-1602, Dr. Young admitted that he was not able to discern the type of habitat where these species were observed. *See* Tr. at 1628.

4.236 Joint Intervenors are also concerned with the Staff’s mention of the possible relocation of freshwater mussels in the event they are present in dredging locations, noting that “[r]elocations of freshwater mussels have had variable success — with some relocation attempts resulting in 100% mortality.” Young EC 6.0 Direct Testimony at 5; *see also* Tr. at 1608. The Staff did not disagree with the risk involved in mussel relocation. This is the reason the Staff stated that the relocation of mussels would be a last resort option. The Staff believed that in the first instance every effort likely would be made “to minimize the amount of dredging in [an] area [where mussel species are present].” Tr. at 1535-36; *see also* Staff EC 6.0 Direct Testimony at 22. Joint Intervenors did not otherwise dispute the Staff’s explanation of possible efforts to minimize adverse effects on freshwater mussels.

4.237 Therefore, contrary to Joint Intervenors claim that more thorough mussel surveys should be conducted relative to the Staff’s cumulative impacts analysis, *see* Young EC 6.0 Direct Testimony at 5, both the Savannah River and Pee Dee River surveys are sufficient to support the Staff’s finding that impacts will be MODERATE because they show that mussels are not likely to be found in the potential dredge areas. Joint Intervenors do not provide any evidence that would support a finding that, given the above evidentiary record supporting the Staff’s conclusion, impacts on freshwater mussels would be greater than MODERATE.

ii. FISH

4.238 Joint Intervenors witness Dr. Young stated that dredging might negatively impact other aquatic species such as the shortnose and Atlantic sturgeon, the robust redhorse, and the striped bass, and that more studies are necessary. *See* Young EC 6.0 Direct Testimony at 4; Young EC 6.0 Rebuttal Testimony at 4. In response to Joint Intervenors concerns, SNC witness Dr. Coutant prepared a report that concluded that the food web dynamics and spawning success of these species would not be significantly affected. *See* SNCR20051, at unnumbered pp. 11-12 (Analysis of Impacts of Navigation Channel Maintenance for Barge Delivery of Materials for Construction of Vogtle Units 3 and 4 on the Ecology of the Savannah River (Jan. 2, 2009, corrected Mar. 13, 2009)) [hereinafter Coutant Report]. In addition, he stated at the hearing that “[t]here obviously will be some change in turbidity” or “some increase in the silt that’s put into the water” from dredging or snag removal, but “[t]hat kind of turbidity effect is very brief. The siltation settles out very quickly and has no long term effect.” Tr. at 1362. Further, Dr. Coutant stated that these species tend to be in deep water in the channel, whereas the dredging habitats are shallow by definition. *See id.* Therefore, he expected that these species “are not going to be unduly impacted.” *Id.*

4.239 Although Dr. Young specifically took issue with Dr. Coutant’s statement in his report that the robust redhorse has not been identified in the reach of the Savannah River where the dredging is proposed, *see* Young EC 6.0 Rebuttal Testimony at 4, Dr. Young did not challenge Dr. Coutant’s conclusions regarding these fish species other than to allege that more studies are necessary. For the purposes of the Staff’s FEIS, however, more studies at this stage are not necessary. As Dr. Young acknowledged, site-specific studies likely will be conducted by US-ACE if dredging is pursued as an option. *See* Tr. at 1614-15. Dr. Coutant’s report and testimony support the Staff’s finding that impacts to fish from dredging or snag removal could be MODERATE, with nothing provided by Joint Intervenors indicating that these impacts would be greater than MODERATE.

iii. SNAG REMOVAL

4.240 Joint Intervenors argue that the removal of trees and snags identified by SNC could negatively impact fish and mussel species. *See* Young EC 6.0 Rebuttal Testimony at 2-3. Joint Intervenors witness Dr. Young asserted that removal of trees from the main channel, even though it could positively impact shallow water species when the trees and snags are then deposited along the banks, could negatively impact main channel mussels and fish. *See id.* In particular, Dr. Young emphasized that woody debris provides a very important habitat to “a number of . . . species of concern or threatened or endangered species.” Tr. at 1612. Dr. Young asserted that from “the number of trees that may have to be removed from the channel, . . . there’s no way it would not affect these vulnerable

species.” *Id.* He also noted the importance of reestablishment of these habitats, with a potential mitigation measure of replacing the snags after they have been removed. *See* Tr. at 1616-17.

4.241 SNC witness Dr. Coutant agreed that there is a potential impact on aquatic biota from snag removal. *See* Tr. at 1359. He stated that “if you have a large tree that falls in and its branches will catch smaller woody debris, th[en] it becomes a velocity barrier and fish will tend to hide behind it.” *Id.* Dr. Coutant did not believe, however, that snag removal would have a significant impact. This is because he estimated that “only about a third” of these barriers that are present in the channel will be removed. Tr. at 1360. Not only would this leave the remaining two-thirds in place, but he indicated that the one-third being taken from the channel would be “moved to another spot out of the way of the barges” so that “ecological function is still going to occur.” *Id.* In addition, Dr. Coutant stated that snags “tend[] to reappear quite quickly as you have a flooding cycle. . . . [, s]o this kind of habitat is reestablished very quickly.” Tr. at 1360. SNC witness Mr. Moorer added that in his experience with USACE dredging, the USACE “do[es] not allow . . . dredging to occur during spawning periods, and they might have similar controls for snag removal as well,” Tr. at 1361, further indicating that any impacts from snag removal likely will be limited.

4.242 Citing a study that he participated in, which indicated that woody debris provides important habitats for fish and mussel species, Joint Intervenor witness Dr. Young asserted that there likely would be a negative impact on species whose habitats are disrupted. *See* Tr. at 1611-14. As discussed above, the Staff and SNC appear to agree that there will be some negative impacts from the removal of trees and snags. The important question, however, is whether these impacts will exceed the highest potential impact that the Staff predicted could occur in the FEIS — whether it would exceed a MODERATE impact. Joint Intervenor do not provide any evidence to rebut the Staff’s and SNC’s evidence establishing, by a preponderance of the evidence, that impacts from snag removal likely would not exceed MODERATE.

iv. SEDIMENT CONTAMINATION

4.243 Joint Intervenor allege that the sediments that might be resuspended as a result of dredging might be contaminated, which could impact water quality, aquatic biota, *see* Tr. at 1588-89, 1598-99, 1609-10, and dredge disposal options, *see* Hayes EC 6.0 Direct Testimony at 10. SNC witness Dr. Coutant responded, however, that “there is good evidence . . . that these river sediments are not contaminated.” Tr. at 1356. Dr. Coutant cited a “study of three representative sites in the reach of river that we’re talking about for dredging[,] where sampling was done of the bottom sediments and the water quality[,] . . . [that] indicated that all of the sediment concentrations of the materials you might consider

as contaminating the water quality,” Tr. at 1356, were in concentrations that fell below relevant standards. Tr. at 1356-1358. Based on this study, Dr. Coutant concluded that “I’m quite confident that the sediments in the river are not contaminated,” and that the impacts associated with any potential risk of contamination “look like they’d be small.” Tr. at 1357; *see also* Tr. at 1358.

4.244 Consistent with his conclusion that the sediments likely are not contaminated, Dr. Coutant explained that even though there are fish consumption advisories for the Savannah River, likely due to the presence of mercury in fish, “it doesn’t necessarily mean that . . . mercury has come out of the sediments.” Tr. at 1381. He elaborated that although “there is a potential source of mercury in the Savannah system and that’s the Chlor-Alkali Plant . . . near Augusta, . . . the mercury levels . . . in the Savannah River are quite low.” Tr. at 1380. Mercury concentration at these levels often can be attributed to “the general atmospheric deposition of mercury from coal burning and other activities that give that pretty consistent background of mercury level in the water,” Tr. at 1380-81, which is then “taken up by organisms.” Tr. at 1379. Joint Intervenors did not dispute Dr. Coutant’s testimony with respect to contamination. *See* Tr. at 1589.

4.245 Joint Intervenors witness Dr. Hayes explained that in citing fish consumption advisories and a paper concerning mercury contamination related to the Chlor-Alkali plant near Augusta, he merely wanted the issue of potential contamination to be considered in the environmental analysis. *See* Tr. at 1588-89. Likewise, Joint Intervenors witness Dr. Young cited his own experience studying fish with possible contamination, and asserted that this was an area of concern for him as a biologist. *See* Tr. at 1609-10. However, neither Dr. Hayes nor Dr. Young disputed Dr. Coutant’s assertion that contamination in the sediment was not likely to be an issue. Thus, the preponderance of the evidence establishes that Joint Intervenors evidence is insufficient to rebut the Staff’s finding that the impacts from dredging likely would be no greater than MODERATE.

c. Disposal of Dredged Material

4.246 Joint Intervenors claim that the Staff did not adequately address the management and disposal of dredged material. *See* Hayes EC 6.0 Direct Testimony at 5-6. When the Staff wrote the FEIS it did not have any information on potential disposal areas, but it considered the disposal of dredged material in finding that the impacts could be MODERATE. *See* Staff EC 6.0 Direct Testimony at 15. This information was corroborated by testimony from SNC at the evidentiary hearing. Based on his experience with channel maintenance and dredging operations, SNC witness Mr. Moorer stated it was his opinion that the USACE will “use existing upland disposal areas or move the material to heavily eroded areas to replenish sand lost to hurricane or heavy wave damage” rather than a “within bank” disposal program that the USACE previously used for

channel maintenance. Moorer EC 6.0 Direct Testimony at 4-5. In addition, Dr. Coutant stated in his report that these disposal options are “feasible because of the relatively small amount of material involved.” Coutant Report at 4.

4.247 Joint Intervenors appeared to agree that given the small amount of material anticipated, disposal would be manageable. After learning of SNC’s estimated dredge volume of approximately 36,500 cubic yards of material, Joint Intervenors witness Dr. Hayes characterized the dredging project as a “very small to modest” project that “can be managed fairly readily.” Tr. at 1586. He was therefore “not particularly concerned whether [the volume is] 36,000 or 40,000, or 30,000.” *Id.* Instead he would be concerned if that number changed by an order of magnitude, from 36,000 to 360,000. If that were the case, “things [would] change very dramatically” because more material would need to be managed and placement areas for dredged material would need to be assessed for environmental impacts. *Id.* However, Dr. Hayes acknowledged that USACE or SNC, whichever would be paying for the dredging, would eventually perform a survey to better estimate the volume of dredged material before beginning work on any dredging project. *See* Tr. at 1596-97.

4.248 As discussed above with respect to the extent of dredging, the Staff assumed that the channel would be dredged to the greatest USACE-authorized extent of 9 by 90 feet, and with this amount determined that construction impacts, including those related to the disposal of dredged material, would not be greater than MODERATE. There was otherwise no evidence that contradicted the Staff’s MODERATE finding in terms of impacts from dredge disposal. Furthermore, although there is limited information available with regard to dredge disposal, the Staff, SNC, USACE, and Joint Intervenors all agreed that this is an area that will be addressed if and when dredging is pursued as an option. *See* Tr. at 1536 (Staff); Moorer EC 6.0 Direct Testimony at 4-5 (SNC); Tr. at 1404-06 (USACE); Tr. at 1596-97 (Joint Intervenors).

d. Mitigation Measures

4.249 The Staff’s analysis and conclusion are consistent with the USACE testimony regarding USACE’s eventual review of any dredging project and identification of mitigation measures. As discussed above, in making its FEIS finding, the Staff relied on the types of impacts that USACE likely would evaluate and the types of actions or conditions on dredging that USACE would consider to mitigate those impacts. USACE indicated that it will be required under NEPA to perform an environmental review of an application for a permit submitted by SNC and likely will be required to perform an environmental review prior to resuming maintenance dredging. *See* Tr. at 1394-98, 1434-35; USACE EC 6.0 Direct Testimony at 6-7. Witnesses for the USACE also confirmed that in both cases, compliance with water quality standards will be required prior to any dredging.

See USACE EC 6.0 Direct Testimony at 6-7. This further supports a finding that dredging-related impacts likely will not be greater than MODERATE.

4.250 Witnesses for Joint Intervenors and SNC appear to be in agreement that the environmental impacts will be bounded by USACE's more in-depth review. Dr. Coutant and Mr. Moorer, both witnesses for SNC, testified that based on their experience with environmental review, impacts on mussels, impacts from sediment contamination, and impacts from snag removal will be explored in greater detail by USACE if and when SNC makes a formal request for USACE maintenance dredging or a dredging permit. See Tr. at 1355, 1357, 1361. USACE might place time of year restrictions on dredging so as not to interfere with spawning, for example. See Tr. at 1361. Dr. Hayes, a witness for Joint Intervenors, stated that in terms of the USACE process, he did not really have anything "to say that is really contradictory to what has already been said by the Corps of Engineers or the NRC panel." Tr. at 1593. Dr. Hayes added that if SNC were to request a permit, then SNC would perform the assessment that he had expected to see in the Staff's FEIS, which USACE would then use as part of the permitting process. *Id.* Joint Intervenors witness Dr. Young also acknowledged areas where the USACE likely would perform an in-depth review. See Tr. at 1614-15.

4.251 Based on the foregoing, the Board agrees with the undisputed evidence that any impacts associated with dredging the navigation channel likely would not exceed MODERATE, and finds that the Staff's conclusion in this regard was reasonable and is supported by the preponderance of the evidence before the Board.

8. Adequacy of Staff's FEIS Methodology Regarding Impacts of Upstream Reservoir Operations

4.252 The FEIS does not contain an analysis of the impacts of upstream reservoir operations for transportation of construction components on the Savannah River. This is because, after discussions with USACE, "the Staff assumed reservoir operations would not be altered solely for the purpose of navigation." Staff EC 6.0 Direct Testimony at 6. "Accordingly the Staff did not consider it reasonably foreseeable that there would be impacts to the upstream reservoirs associated with releases for navigation, in connection with either the NRC's action or the potential dredging of the Federal navigation channel." *Id.*

a. Parties' Arguments Regarding Impacts of Upstream Reservoir Operations

4.253 The Staff argues that because the USACE will not be making any releases from upstream reservoirs outside of its ordinary flood control plan

operations, it is not “reasonably foreseeable that there would be impacts to the upstream reservoirs associated with releases for navigation.” *Id.* SNC likewise argues that such an analysis was not required to be included in the FEIS because it was not reasonably foreseeable that USACE would make additional water releases to support navigation outside of its ordinary operations. *See* SNC Proposed Findings at 46-47.

4.254 Joint Intervenors, on the other hand, assert that because the impacts of water releases from upstream reservoirs are unaddressed, this is a violation of the Staff’s responsibilities under NEPA. Joint Intervenors insist that an analysis of impacts from water releases must be conducted before an ESP is issued. *See* Joint Intervenors Proposed Findings at 42-43.

b. Adequacy of Staff’s Decision Not to Address Impacts of Upstream Reservoir Operations

4.255 The Board finds that the preponderance of the evidence establishes that it is not reasonably foreseeable that USACE would release water from upstream reservoirs to support barge transportation of SNC’s construction components on the Savannah River outside of its normal operations. Accordingly, the Staff’s decision not to address these impacts was reasonable because it was not required under NEPA to include this information in the FEIS.

4.256 As discussed in section IV.C.3.a, above, one of SNC’s options if it decides to transport at least some of its construction components by barge, but decides not to dredge the federal navigation channel to enable barging, is to choose to coordinate with USACE a release of water from upstream reservoirs.

4.257 The Staff assumed that USACE would not be making any releases to support barge transportation for SNC’s construction components outside of USACE’s normal flood control operations. This was confirmed in testimony from USACE. Although USACE has released water outside of its normal flood control operations a few times in the last 20 years, it more likely would do so incident to its normal flood control operations. Moreover, SNC has unequivocally stated that it “does not plan to request any extra or special releases from upstream reservoirs to support navigation. Operations in accordance with existing Corps procedures is all that is expected.” Moorer EC 6.0 Direct Testimony at 7. Indeed, without such a request, USACE will not make any special releases.

4.258 Under NEPA, the Staff is required to include an analysis of only those impacts that are reasonably foreseeable or have some likelihood of occurring. *See, e.g., Shoreham*, ALAB-156, 6 AEC at 836. Because there is nothing in the record to indicate that USACE will make any releases outside of its normal water control operations to support barging of construction components — and there is overwhelming evidence to the contrary, i.e., that USACE will not make any releases outside of its normal water control operations — it is not reasonably

foreseeable that such releases will be made. Accordingly, the Staff's decision not to include an analysis of the impacts of such releases was reasonable.

9. *Joint Intervenors Likely Will Have Another Opportunity to Raise Their Concerns*

4.259 In reaching this decision regarding Joint Intervenors contention EC 6.0 and finding reasonable the Staff's FEIS conclusion that the cumulative impacts from dredging the federal navigation channel could be MODERATE, the Board also notes that Joint Intervenors are not necessarily foreclosed from raising their concerns if and when a decision is made to dredge the federal navigation channel.

4.260 If the ESP has not been issued and new and significant information is obtained with respect to dredging the channel, the Staff will issue a supplemental EIS in this proceeding. *See* Tr. at 1547. Also, in accord with its review of the SNC COL application for Vogtle Units 3 and 4 (which is the subject of a contested proceeding before a separate licensing board, albeit one that contains the same membership as this Board), the Staff will issue a supplemental EIS that will address any new and significant information identified by SNC. *See* Tr. at 1547-48; *see also* Tr. at M-2387 to M-2388.⁵⁰ For both proceedings, the draft supplemental EIS will be published in the *Federal Register*, and the public, including Joint Intervenors, will be given an opportunity to provide comments on the draft. *See* Tr. at 1548-49. A final supplemental EIS then will be issued incorporating the Staff's responses to those comments. *See* Tr. at 1548. In the event SNC determines that there is no new and significant information and the Staff agrees, a draft supplemental EIS will be issued with a statement to that effect and the public will have an opportunity to comment on that determination. *See* Tr. at M-2389-90. Joint Intervenors also may be able to submit a contention challenging any analysis of planned dredging. *See, e.g.*, 10 C.F.R. § 52.39(c); *Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 309 (2008).

4.261 Alternatively, Joint Intervenors might be able to raise their concerns in a USACE proceeding if and when an environmental review process for any dredging is initiated. As discussed in section IV.C.3, above, USACE allows public participation through comment on proposed projects, the opportunity to

⁵⁰ Although this is a citation to the transcript of the mandatory hearing for this proceeding, to which Joint Intervenors were not a party, it is noted here merely as providing further confirmation of the testimony regarding the NEPA procedural process that was given in the contested hearing.

request a hearing on a proposed project, attendance at informal meetings with USACE, and the opportunity to comment on any draft EIS that will be issued.⁵¹

10. Summary of Findings Regarding Contention EC 6.0

4.262 The Staff's review process and discussion of potential dredging-related impacts satisfied its obligation under NEPA and Commission regulations to take the requisite "hard look" at the environmental impacts of such dredging. Although from initial discussions with USACE and SNC the Staff determined that dredging was unlikely, it responded to comments on the DEIS by including this information. *See* 10 C.F.R. § 51.91(a)(1). The Staff also properly noted in the FEIS the areas in which it did not have enough information to make a more thorough analysis. *See* 40 C.F.R. § 1502.22 (providing that any agency should make clear when information is incomplete or lacking).⁵²

⁵¹ Relative to the possibility of future USACE water releases to permit barging without dredging, the record indicates that USACE would not undergo an environmental review process if it were making releases within its normal flood control operations. *See* Tr. at 1451-52. Nothing on the record before us suggests that any release necessary to accommodate the components at issue here would lie outside those parameters. *See supra* section IV.C.8.

⁵² In response to SNC's proposed findings, Joint Intervenors assert in their reply findings that 40 C.F.R. § 1502.22 cannot be relied upon to justify the limited information available in the FEIS. They argue that the standard in 40 C.F.R. § 1502.22(a) has not been met because the overall costs of obtaining information regarding dredging impacts are not exorbitant "[i]n light of the \$7 billion costs of each proposed Unit." Joint Intervenors Reply Findings at 35-36. Arguing in the alternative, Joint Intervenors maintain that even if the Staff were excused from obtaining the information under 40 C.F.R. § 1502.22(a), the standards in 40 C.F.R. § 1502.22(b) have not been met. According to Joint Intervenors, neither the FEIS, nor the record as a whole, contains the additional explanation required to be included under 40 C.F.R. § 1502.22(b) when the information cannot be obtained. *Id.* at 36.

Contrary to Joint Intervenors assertion, the Staff was not required under 40 C.F.R. § 1502.22(a) to obtain additional information regarding dredging-related impacts. Based on the information that the Staff had at the time, with a potentially wide-ranging dredging project encompassing over 100 miles of river dredged to a depth of 9 feet and a width of 90 feet, a quantitative study of environmental impacts, indeed, the type of study that Joint Intervenors demand, *see* Joint Intervenors Reply Findings at 32, likely would be exorbitant. *Compare* Hayes EC 6.0 Direct Testimony at 6 ("[A]bout 116 miles of river channel . . . will need to be dredged. For a 90 foot wide channel, the requisite dredging activities could disturb 140 acres or more of benthic habitat and result in about two million cubic yards of sediment to be dredged per foot of deepening required. . . . Despite the lack of specific data, the FEIS could provide a range of estimates for sediment volume and dredging duration based upon some reasonable assumptions and ranges of conditions"), *with* Staff EC 6.0 Rebuttal Testimony at 3 ("a large-scale dredging project [potentially such as this one] does involve a comprehensive environmental analysis that would call for substantial ecological, geotechnical, chemical, and physical information"), *and id.* at 4 ("Without a pending plan or dredging application before the Corps, the Staff was severely constrained during preparation of the FEIS. . . . Any quantitative evaluation

(Continued)

4.263 Moreover, the preponderance of the evidence presented at the hearing, as it supplements the Staff's FEIS, supports the Staff's finding that the cumulative impacts from dredging could be MODERATE. Although Joint Intervenors raised issues that indicated there might be negative impacts from dredging and snag removal, nothing described by Joint Intervenors indicated that any of these impacts would be greater than MODERATE. Joint Intervenors arguments amount ultimately to an assertion that more information is needed regarding the scope of the dredging project and that more studies are necessary to understand the environmental impacts of dredging. NEPA's hard look requirement is subject to a rule of reason, however, and extensive studies of every conceivable impact need not be addressed. *See Shoreham*, ALAB-156, 6 AEC at 836. The Staff provided a reasonable analysis of the potential dredging-related impacts and a reasonable explanation for why they determined that such impacts could be MODERATE. This is all that NEPA requires.

4.264 Furthermore, if SNC determines that dredging will be necessary to transport heavy construction components to the VEGP site and it decides either to request that USACE resume maintenance dredging or to request a permit, more information likely will be provided and more studies likely will be conducted, and this information likely will be incorporated into any environmental review document produced by USACE. That this information is not available now should not "halt government action" in this instance, *Sigler*, 695 F.2d at 970, particularly

by the Staff would have been a highly speculative effort, since the range of postulated dredging quantities alone would encompass several orders of magnitude"). Although the survey conducted by SNC provided additional information that indicated the extent of dredging could be much less than originally thought, this information cannot be known for certain until SNC, if it decides to do so, applies for a permit with USACE or requests that USACE resume maintenance dredging, thereby initiating USACE's environmental review process.

Because the costs of obtaining additional information likely would be exorbitant, the question becomes whether 40 C.F.R. § 1502.22(b) has been satisfied. Looking at the FEIS, as now supplemented by this decision, the additional explanation required under 40 C.F.R. § 1502.22(b) has been provided. The Staff stated numerous times in the FEIS and in testimony that certain information is unavailable to perform the quantitative or site-specific analysis of dredging impacts that USACE would eventually perform, satisfying 40 C.F.R. § 1502.22(b)(1). *See, e.g.*, FEIS 1B, at 7-20 to -21. As all parties to the proceeding and USACE stated both in prefiled and oral testimony, this information, when available, is relevant to determining if, when, where, and how any dredging and any mitigating measures will be conducted, satisfying 40 C.F.R. § 1502.22(b)(2). *See generally* Tr. at 1287-1631. In addition to what was included in the FEIS, the testimony provided at the hearing satisfies 40 C.F.R. § 1502.22(b)(3), with experts in the field from all three parties explaining, and with SNC and Joint Intervenors referencing particular scientific studies, the types of impacts that could occur. *See, e.g.*, Tr. at 1349-52, 1588-89, 1599-1602, 1611-12; Staff EC 6.0 Direct Testimony at 14-15. And, finally, the Staff's conclusion that the impacts could be MODERATE, with the Board's finding that this was a reasonable conclusion, satisfies 40 C.F.R. § 1502.22(b)(4) in that it is the agency's evaluation of the potential dredging impacts and the potential methods of mitigating those impacts based on a review of the evidence presented by qualified expert witnesses with relevant experience.

when it would become available with USACE's eventual environmental review and could still be used to inform a USACE decision or the Staff's NEPA decision relating to this SNC ESP application, or the pending SNC COL application for Vogtle Units 3 and 4, depending on the timing of its availability.

4.265 The Board therefore concludes that the Staff's FEIS finding that cumulative impacts from dredging the federal navigation channel could be MODERATE is adequately supported. Moreover, the Staff was not required to include an analysis of the impacts of releases from upstream reservoirs because such releases were not reasonably foreseeable. Accordingly, a judgment on the merits regarding Joint Intervenor's contention EC 6.0 is entered in favor of the Staff and SNC.

V. SUMMARY FINDINGS OF FACT AND CONCLUSIONS OF LAW

5.1 With respect to contention EC 1.2, the Board rules that (1) the Staff's reliance on the extensive body of existing scientific and technical information regarding the Middle Savannah River Basin in reaching its FEIS conclusions regarding impingement/entrainment/thermal impacts for Vogtle Units 3 and 4, met the NEPA requirement to take a "hard look" at those impacts, notwithstanding Joint Intervenor's assertion that a contemporary site-specific assessment was necessary; and (2) the Staff's conclusion that impingement/entrainment/thermal impacts associated with the operation of Vogtle Units 3 and 4, including cumulative impacts, would be SMALL was fully supported by the record, including the additional information provided by Applicant SNC as a result of several recent scientific surveys it undertook in connection with its currently operating Vogtle Units 1 and 2 facility. As such, a judgment on the merits regarding contention EC 1.2 is entered in favor of the Staff and SNC.

5.2 With respect to contention EC 1.3, the Board finds that (1) the lack of significant impacts on ESBRs from the proposed closed-cycle wet cooling towers justifies the FEIS's limited discussion of dry cooling and reliance on EPA's prior findings; (2) in the context of the proposed Vogtle facilities, implementing a dry cooling system is technically infeasible so that it is not a reasonable alternative in the context of NEPA and, therefore, does not need to be analyzed further to satisfy NRC's NEPA obligations; and (3) the record now contains sufficient evidence on dry cooling to support a conclusion that dry cooling would not be preferable to the proposed wet cooling system at the Vogtle site. We thus conclude that the agency's NEPA obligations relative to the discussion of design alternatives have been satisfied with regard to dry cooling, and contention EC 1.3 is resolved on the merits in favor of the Staff and SNC.

5.3 With respect to contention EC 6.0, the Board concludes that (1) the Staff's review process and discussion of potential dredging-related impacts satisfied its obligation under NEPA and Commission regulations to take a hard look at the environmental impacts of such dredging, given the information that it had when the FEIS was issued; (2) the preponderance of the evidence presented at the hearing supports the Staff's finding that the cumulative impacts from dredging could be MODERATE; (3) if SNC determines that dredging will be necessary to transport heavy construction components to the VEGP site and it decides either to request that USACE resume maintenance dredging or to request a permit, more information likely will be provided and more studies likely will be conducted, and this information likely will be incorporated into any environmental review document produced by USACE, which would become available and inform a USACE decision on the dredging or the Staff's NEPA decision relating to this SNC ESP application, or the pending SNC COL application for Vogtle Units 3 and 4, depending on the timing of its availability. The Board also finds that the Staff was not required to include an analysis of the impacts of releases from upstream reservoirs outside of USACE's normal flood control operations as such releases are not reasonably foreseeable. As a consequence, a judgment on the merits regarding Joint Intervenors contention EC 6.0 is entered in favor of the Staff and SNC.

6.1 Pursuant to 10 C.F.R. § 2.1210, it is, this 22d day of June 2009, ORDERED that:

- A. In accord with 10 C.F.R. §§ 2.319(m), 2.332(b), (1) the record of this proceeding is *reopened*; (2) exhibit NRCR00014 is *admitted* into evidence; (3) exhibit NRC000014 is *stricken* from the evidentiary record of this proceeding; and (4) the record of this proceeding is *closed*.⁵³
- B. Joint Intervenors contentions EC 1.2, EC 1.3, and EC 6.0 are *resolved* on the merits in favor of the Staff and Applicant SNC, and the contested

⁵³ During its post-hearing review of the record, the Board discovered that two different documents were prefiled in this proceeding with the exhibit number NRC000014: the 1974 FES for the Vogtle Units 1-4 construction permit and the 1985 FES for the Vogtle Units 1 and 2 operating license. Although the 1974 FES was marked and admitted into evidence at the evidentiary hearing, it is apparent that the Staff intended to submit the 1985 FES, *see* NRC Staff Revised Exhibit List and Corrected Exhibit NRC000014 (Jan. 16, 2009) at 2; Tr. at 750-51, and that the parties have referred to the 1985 FES and not the 1974 FES in their proposed findings. Accordingly, the 1974 FES, exhibit NRC000014-00-BD01 as admitted at the evidentiary hearing, *see* Tr. at 765, is being stricken, and NUREG-1087, [FES] related to the operation of Vogtle Electric Generating Plant, Units 1 and 2, dated March 1985, is being admitted into evidence as exhibit NRCR00014-00-BD01 and is being placed into the record of this proceeding.

portion of the Vogtle Units 3 and 4 ESP proceeding before this Board is *terminated*.

- C. In accordance with 10 C.F.R. § 2.1210, this Partial Initial Decision will constitute a final decision of the Commission forty (40) days from the date of issuance (or the first agency business day following that date if it is a Saturday, Sunday, or federal holiday, *see* 10 C.F.R. § 2.306(a)), i.e., on *Monday, August 3, 2009*, unless a petition for review is filed in accordance with 10 C.F.R. § 2.1212, 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 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 August 2006 application of SNC for an ESP for its proposed Vogtle Units 3 and 4, Staff issuance of a 10 C.F.R. Part 52 ESP relative to those facilities must abide, among other things, the issuance by this Board of its Partial Initial Decision regarding the uncontested, mandatory hearing portion of this proceeding.

THE ATOMIC SAFETY AND
LICENSING BOARD⁵⁴

G. Paul Bollwerk, III, Chairman
ADMINISTRATIVE JUDGE

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

James F. Jackson
ADMINISTRATIVE JUDGE

Rockville, Maryland
June 22, 2009

⁵⁴ Copies of this Partial Initial Decision were sent this date by the agency's E-Filing system to counsel for (1) Applicant SNC; (2) Joint Intervenors; and (3) the Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Paul B. Abramson, Chairman
Dr. William E. Kastenberg
Dr. Michael F. Kennedy

In the Matter of

Docket Nos. 52-022-COL
52-023-COL
(ASLBP No. 08-868-04-COL-BD01)

PROGRESS ENERGY CAROLINAS, INC.
(Shearon Harris Nuclear Power
Plant, Units 2 and 3)

June 30, 2009

MEMORANDUM AND ORDER
(Ruling on Admissibility of Contention TC-1
in Response to the Commission's Remand in CLI-09-8)

In LBP-08-21, we ruled upon standing and admissibility of contentions regarding Progress Energy's (Progress or Applicant) application to the Nuclear Regulatory Commission (NRC) for a combined license (COL) under 10 C.F.R. Part 52.¹ If granted, this COL would authorize Progress to construct and operate two new units employing the Westinghouse Electric Corporation's AP1000 advanced pressurized water power reactor certified design on its existing Shearon Harris site, located in Wake County, North Carolina. In particular, in LBP-08-21, we found one contention, designated TC-1, submitted by Petitioner North Carolina Waste Awareness and Reduction Network (NC-WARN or Petitioner) admissible, and referred it to the NRC Staff (Staff) for consideration in the rulemaking

¹ See LBP-08-21, 68 NRC 554 (2008).

proceeding on the AP1000 design certification, holding any hearing on the merits in abeyance.² In CLI-09-8, issued May 18, 2009 (hereinafter referred to as the Remand), the Commission, in response to appeals by Staff and Applicant of our admission of that contention, remanded the case to this Board for reassessment of the admissibility of Contention TC-1.³ Underlying the Commission's remand order was their finding that this Board had not made an appropriate admissibility determination on Contention TC-1.⁴

I. ANALYSIS

A. Contention Admissibility Standards

Contention admissibility is governed by 10 C.F.R. § 2.309(f)(1), which specifies a set of strict requirements all of which must be satisfied for a contention to be admissible. For a contention to be admissible under those provisions, it must provide: (1) a specific statement of the legal or factual issue sought to be raised; (2) a brief explanation of its basis; (3) a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at hearing; and (4) sufficient information demonstrating that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief. *See* 10 C.F.R. § 2.309(f)(1)(i), (ii), (v), and (vi). The petitioner must also demonstrate that the issue raised in the contention is both "within the scope of the proceeding" and "material to the findings the NRC must make to support the action that is involved in the proceeding." *Id.* § 2.309(f)(1)(iii), (iv).

B. Contention TC-1 (AP1000 Certification)

As originally phrased by NC-WARN, Contention TC-1 read:

² *Id.* at 560-64.

³ *See* CLI-09-8, 69 NRC 317 (2009).

⁴ *Id.* at 324. Indeed, as we now understand it, the Commission's view, expressed by the combined effect of CLI-08-15 and CLI-09-8, is quite simply that if a board finds a contention would be admissible but for the fact that it challenges a design undergoing certification rulemaking (which would make it inadmissible as outside the scope of a licensing board hearing), the board should refer such a contention to the Commission Staff for consideration in that rulemaking, holding the contention in abeyance until the rulemaking is completed. *See id.*; CLI-08-15, 68 NRC 1, 4 (2008).

The COLA is incomplete because many of the major safety components and procedures at proposed Harris reactors are only conditional at this time. The COLA adopts by reference a design and operational procedures that have not been certified by the NRC or accepted by the applicant. Modifications to the design or operational procedures for the AP1000 Revision 16 would require changes in Progress Energy's application, the final design and operational procedures. Regardless whether the components are certified or not, the COLA cannot be reviewed without the full disclosure of all designs and operational procedures.⁵

In our decision set forth in LBP-08-21, we determined that Contention TC-1 was a contention of omission, because, among other assertions, (1) the contention begins with the explicit assertion that “[t]he COLA is incomplete because . . .”⁶ and (2) the “support for contention” offered by NC-WARN commences with the statement that “[t]he most significant elements . . . are lacking in the COLA.”⁷ On its face and in plain language, this contention asserted specific omissions from the application itself, not flaws with the design certification or the process related thereto.⁸ Nonetheless, because of the general and vague nature of this contention, in admitting and referring to the Staff for consideration in rulemaking, we limited Contention TC-1 to the following nine explicit assertions regarding omissions from the COLA.

Specifically at the proposed Harris reactors, the application does not contain the following:

- a. The final design of the reactor containment.
- b. The control room set up and operator decision-making procedures.
- c. Seismic qualifications for various components of the AP1000 reactors.
- d. The establishment of fire protection areas.
- e. Technology requirements for heat removal.
- f. Human factors engineering design throughout the plant.
- g. Plant personnel requirements.

⁵ See Petition for Intervention and Request for Hearing by [NC-WARN] at 13 (Aug. 4, 2008) [hereinafter Intervention Petition].

⁶ *Id.*

⁷ *Id.*

⁸ The Remand characterizes this decision as the Board having “recast NC-WARN’s contention as a ‘contention of omission,’ ” CLI-09-8, 69 NRC at 325, but as we see it, the principal focus of the Remand is the Commission’s view that we had erroneously interpreted CLI-08-15 to direct us to refer the contention to the Staff for resolution during the design certification rulemaking “before deciding whether the contention was admissible.” *Id.*

- h. Alarm systems throughout the plant.
- i. Plant-wide requirements for pipes and conduits.⁹

Our ruling in LBP-08-21 was founded on the Commission's statement in CLI-08-15 that if the petitioners believe that "the Application is incomplete in some way, they may file a contention to that effect."¹⁰ That is, if some design information has been omitted from a COL, "licensing boards 'should refer such a contention to the Staff for consideration in the design certification rulemaking, and hold that contention in abeyance, if it is otherwise admissible.'" ¹¹ In CLI-09-8, the Commission clarified the foregoing, calling to our attention the import of the phrase "otherwise admissible," i.e., such contentions are to be so admitted, referred to the Staff, and held in abeyance only if they are "otherwise admissible."¹² In the following, we review and analyze all of the assertions and supporting information provided by NC-WARN regarding Contention TC-1 for satisfaction of the relevant "other" requirements of 10 C.F.R. § 2.309(f)(1).¹³

⁹ LBP-08-21, 68 NRC at 561-62.

¹⁰ CLI-08-15, 68 NRC at 3.

¹¹ *Id.* at 4 (quoting Conduct of New Reactor Licensing Proceedings; Final Policy Statement, 73 Fed. Reg. 20,963, 20,972 (Apr. 17, 2008)). While CLI-08-15 did not address the disposition of a contention asserting errors in a design undergoing certification rulemaking, it seems to this Board that the policy being expressed by the Commission in CLI-08-15 and CLI-09-8 is that all assertions regarding a design undergoing certification rulemaking that qualify as an admissible contention (but for the fact that they challenge that design) should be admitted and referred to the rulemaking proceeding so that such matters receive appropriate scrutiny during the rulemaking design review. *See generally* CLI-08-15, 68 NRC 1 *and* CLI-09-8, 69 NRC 317.

¹² *See* CLI-09-8, 69 NRC at 322, 324.

¹³ Any contention directed at a design undergoing rulemaking review fails on its face to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(iii) — because all matters subject of a rulemaking are outside the scope of our licensing proceedings. "[A] contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible." *See Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 NRC 229, 241 (2004) (citing *Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974); *see also Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 218 (2003)). An applicant for a COL is expressly authorized by NRC's regulations to incorporate by reference a certified design such as the AP1000. *See, e.g.,* 10 C.F.R. § 52.73(a). Appendix D to Part 52 contains the design certification rule for the AP1000 design including Rev. 15. The certification of the AP1000 design (as it would be amended by proposed revisions to the certified design such as Rev. 16) is the subject of current Commission rulemaking. In addressing challenges to the AP1000 design (as already certified through Rev. 15 and as being considered in rulemaking through Rev. 16), the Commission noted that it had "discussed this very situation in its Final Policy Statement on the Conduct of New Reactor Licensing Proceedings . . . [and] stated that issues concerning a design certification application should be resolved in the design certification rulemaking and not in a COL proceeding." CLI-08-15,

(Continued)

Our focus, in accord with the Remand, is upon each of the nine specifically asserted omissions to determine whether or not the requirements of 10 C.F.R. § 2.309(f)(1) are satisfied for each such asserted omission.¹⁴

On appeal, Progress asserted that each of these nine asserted omissions is “a paraphrase of items listed in a table that is part of the AP1000 design certification rule.”¹⁵ The Commission agreed with Progress that these nine items are not omitted from the application because “a COL incorporates both the design certification rule and the amendment application.”¹⁶ Progress further asserted upon appeal that the actual arguments made by NC-WARN raise site-specific matters belonging in this proceeding.¹⁷ The Commission noted that NC-WARN’s own arguments in support of the contention at issue here support the view that the contention is directed at site-specific matters, not the generic design certification so that “resolution in rulemaking is not appropriate.”¹⁸

Thus, the Commission directed that we first assess whether or not the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) are satisfied with respect to Contention TC-1, and, if we find that they are, then assess “whether all or part of the contention is appropriate for resolution in the AP1000 design certification amendment rulemaking.”¹⁹

For completeness, in assessing the nine specific asserted omissions, we analyzed each relevant assertion made by NC-WARN in Contention TC-1 (whether in its initial specification of the contention or in its asserted support therefore). The results of this assessment are presented below.

Petitioner begins its asserted support with the statement that “[t]he most significant elements of the proposed reactors, i.e., the design and operational practices, are lacking in the COLA.”²⁰ Petitioner goes on to discuss the recently submitted revision of the AP1000 design, which is currently undergoing design certification review.²¹ The Petitioner asserted that “[i]t is impossible to conduct a meaningful technical and safety review of the COLA without knowing the

68 NRC at 4. Thus we consider only the “other” requirements of 10 C.F.R. § 2.309(f)(1). We believe that this is the substantive effect of the expression “otherwise admissible” that is used in CLI-09-8 which itself is rooted in the Commission’s Policy Statement on the Conduct of New Reactor Licensing Proceedings. *See* 73 Fed. Reg. 20,963.

¹⁴ CLI-09-8, 69 NRC at 327.

¹⁵ *Id.* at 325.

¹⁶ *Id.*

¹⁷ *Id.* at 326.

¹⁸ *Id.* at 327.

¹⁹ *Id.*

²⁰ Intervention Petition at 13.

²¹ *Id.* at 13-14.

final design of the reactors as they would be constructed by Progress Energy.’²² By these statements Petitioner is, in effect, asserting a deficiency in the COLA regarding safety analysis, but doing so through an assertion that the design to be incorporated into the COLA is itself incomplete. However, safety matters are addressed at length in the AP1000 design (which is fully certified through Rev. 15 and permissibly referenced and incorporated into the subject COLA)²³ and NC-WARN fails to identify, let alone discuss any specific flaws in, those portions of the COLA wherein the safety reviews are set forth. Thus, as this portion of Contention TC-1 erroneously asserts an omission from the application, it is inadmissible because no such omission exists and it therefore fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi). Furthermore, had we interpreted these statements to assert errors in the application, they would fail to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi) by failing to refer to specific portions of the application which they dispute. Finally, to the extent this portion of the contention asserts that there will be changes to the certified design as a result of the Staff’s consideration of the content of Rev. 16 (or for that matter any other future submitted amendments to the AP1000 certified design), it impermissibly challenges the design certification rulemaking *process* and is not admissible.²⁴

Next, NC-WARN asserts that, “[o]n its face, the DCD is incomplete [because] . . . there remain a number of serious safety inadequacies in the AP1000 revision 16 design that have not been satisfactorily addressed.”²⁵ NC-WARN then refers to a list of items which are discussed in correspondence between Westinghouse and the Staff and notes that there remain a number of components whose final design, it believes, remains unresolved.²⁶ NC-WARN then asserts that these unresolved design issues which include the incomplete recirculation screen design will “ultimately impact the safety of the facility.”²⁷ Following a further listing of components whose design will be affected by the design certification process, NC-WARN makes the observation that “[d]uring the certification process, any or all of these [noncertified components] may be modified by the Commission, and as a result, require the applicant to modify its application.”²⁸ NC-WARN asserts that “it is impossible to conduct the probabilistic risk assessment (‘PRA’) for the proposed Harris reactors without a final design and operations procedures.”²⁹ We find that this portion of NC-WARN’s contention fails to: (1) indicate that any

²² *Id.* at 13.

²³ *See* 10 C.F.R. Part 52, App.D, § III.A.

²⁴ *See* 10 C.F.R. § 2.335(a).

²⁵ Intervention Petition at 13.

²⁶ *Id.* at 14-15.

²⁷ *Id.* at 14.

²⁸ *Id.* at 15.

²⁹ *Id.*

of the components it references are not examined or discussed in the application (or in the certified design, through Rev. 15, to which it refers), thereby failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi) to provide support for the proposition that there is an omission from the application, or (2) identify any error in any specific part of the application as well as to present sufficient information to show the existence of a genuine dispute with the applicant, thereby also failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi). Thus, this portion of Contention TC-1 does not present an admissible contention.

Petitioner's assertions are then followed by a series of general observations regarding the AP1000 Rev. 16 reactor design. These include general statements that the AP1000 design is "experimental in nature and has never been constructed even on a demonstration scale,"³⁰ the passive design "has less redundancy in safety systems and lower tolerance for equipment failures"³¹ and "with advanced technologies, risks of failure are usually higher during the break-in phase."³² However, NC-WARN fails to relate these statements to any asserted specific flaw in or omission from the application, thus failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(i), (iv), (v), and (vi). NC-WARN provides no support for these statements nor does it provide any information as to why these statements are material to the decision the NRC must make in this proceeding.³³

Next, NC-WARN asserts "the COLA is incomplete . . . [and] [s]pecifically . . . the application does not contain the following:

- a. The final design of the reactor containment.
- b. The control room set up and operator decision-making procedures.
- c. Seismic qualifications for various components of the AP1000 reactors.
- d. The establishment of fire protection areas.
- e. Technology requirements for heat removal.
- f. Human factors engineering design throughout the plant.
- g. Plant personnel requirements.

³⁰ *Id.*

³¹ *Id.*

³² *Id.*

³³ NC-WARN refers in general to the Union of Concerned Scientists' study, "Nuclear Power in a Warming World: Assessing Risks, Addressing the Challenges." See *id.* at 15 n.24. However, this study appears to be the source for the general statements about the reduction in the number of active safety systems and NC-WARN does not attempt to use this study to controvert the Progress application.

- h. Alarm systems throughout the plant.
- i. Plant-wide requirements for pipes and conduits.’’³⁴

As has now been made clear to us, largely through the filings upon appeal of LBP-08-21,³⁵ these matters are indeed part of the existing design certification rule for the AP1000, incorporated by reference into the application, and therefore such information is not omitted from the application. Thus this erroneous assertion of an omission fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi), and none of the items on this list presents an admissible contention of omission. Further, since NC-WARN neither controverts any specific portion of the application, nor identifies any error in the application relating to these specific matters, and provides no support whatsoever for the proposition that there is any potential error, it fails to present an admissible contention because it does not satisfy the requirements of 10 C.F.R. § 2.309(f)(v) and (vi).

As a further part of this portion of Contention TC-1, NC-WARN also asserts that some of the basic component designs have not been completed such as for the steam generators and pressurizer.³⁶ Further, NC-WARN expressed that it has no confidence that “several of the fundamental issues will be resolved.”³⁷ However, these matters are already, like the other matters raised by NC-WARN, part and parcel of the existing certified design, and therefore these challenges, to the extent they assert an omission, are in error, and to the extent they assert an error, fail to take issue with any specific portion of the application (which incorporates the certified design), thereby failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(v) and (vi). Finally, to the extent these amount to challenges

³⁴ *Id.* at 16. We note that, in its answer to Contention TC-1, Applicant simply referred to this as a “laundry list of nine general categories of components and procedures that are in the AP1000 DC Rule and only incorporated by reference into the application.” [Applicant’s] Answer Opposing the [Intervention Petition] at 16 (Aug. 29, 2008) (hereinafter Applicant Answer). If the Applicant had made the effort to address these asserted omissions, as could easily have been done by calling to our attention where and explicitly how these items are indeed part of the application (as has been done by other applicants in subsequent proceedings — *see, e.g.*, the Virgil C. Summer COL proceeding), the result of LBP-08-21 might well have been materially different. Further, we note that Staff’s reply did not address this list at all.

³⁵ The Commission noted in their decision on the appeals of the Board decision that “according to Progress Energy, all nine items are explicitly part of the AP1000 design certification rule. Further, because a COL incorporates both the design certification rule and the amendment application, the Board erred in concluding that these nine items were omitted from the application.” CLI-09-8, 69 NRC at 325-26 (internal footnote omitted). In its answer to the NC-WARN petition, the Applicant asserted that NC-WARN provided a “laundry list of nine general categories of components and procedures that are in the AP1000 DC Rule and only incorporated by reference into the Application.” Applicant Answer at 16. *See also supra* note 34.

³⁶ Intervention Petition at 17.

³⁷ *Id.*

to the *process* of design certification, as opposed to asserting an omission from or error in the design being certified, it is an impermissible challenge to NRC regulations.³⁸ Thus, these portions fail to raise an admissible contention.

Finally, NC-WARN asserts that “[a]n assessment of the risk is required for a COLA review, and that depends on the ultimate design of the reactor and how all of the components interact with each other.”³⁹ Further, NC-WARN asserts that the severe accident mitigation alternatives (SAMAs) and risk assessment cannot be determined without having the current configuration, design, and operating procedures.⁴⁰ The first statement raises no contention at all, and the latter generalized assertion fails to challenge the severe accident mitigation design alternatives (SAMDA) analysis actually set out in the application⁴¹ or to suggest, let alone provide, the requisite support for the proposition that there is any error therein, thereby failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).⁴²

C. Ruling on Contention TC-1

Having examined, in accordance with the Remand, the nine specific asserted omissions as well as the assertions as set out in Contention TC-1 by NC-WARN, we find that NC-WARN has failed to present an “otherwise admissible contention,” independent of whether or not the matters asserted are directed at the application or at the design certification rulemaking.

As noted in the Virgil C. Summer COL proceeding, and as we have indicated above,

an applicant is permitted to incorporate by reference the certified design into the COLA, but changes proposed to the certified design are to be addressed in the design certification rulemaking and are not within the scope of this proceeding. Nonetheless, along the way, and certainly once a final design is certified, each COL applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom. An applicant will also have to demonstrate that the site-specific parameters are bounded by the parameters developed for the certified design. The process for taking such

³⁸ 10 C.F.R. § 2.335(a).

³⁹ Intervention Petition at 17.

⁴⁰ *Id.*

⁴¹ See Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Site, Units 2 & 3 COL Application), Environmental Report § 7.3.

⁴² While NC-WARN plainly asserts that SAMDA analysis cannot be performed until there is a final design, there is indeed a SAMDA analysis in the current application, and NC-WARN does not assert that it is omitted nor does NC-WARN take issue with any specific portion thereof, thereby failing to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi), and failing to present an admissible contention.

exemptions and departures is set forth in 10 C.F.R. Part 52 App. D, § VIII, and we note that there are provisions in both subsections A.4 and B.4 thereof that describe the process for hearings and litigation on any such departures and exemptions. Thus, at the appropriate point in the overall COLA/DCD process, an interested party will have the opportunity to petition for intervention to raise matters that are material to the decision the NRC must make.⁴³

This process is at the heart of resolving NC-WARN's objections that the design continues to change, creating potentially new safety and environmental concerns. NC-WARN *will* have an opportunity to file new contentions related to material new information regarding site-specific plant design issues. The generic (i.e., non-site-specific) issues are to be resolved as part of the design certification rulemaking process, and any concerns related to those issues must be addressed in the rulemaking and not within the scope of this proceeding.⁴⁴

For the foregoing reasons, Contention TC-1 is inadmissible, and NC-WARN's petition to intervene is denied for lack of an admissible contention.

Finally, since no portion of Contention TC-1 raised matters that present an admissible contention, we need not determine whether the proffered contention "is appropriate for resolution in the AP1000 design certification amendment rulemaking."⁴⁵

II. CONCLUSION

Therefore, although, as we have previously determined, NC-WARN has standing to participate, we now find, upon reassessment of whether the single contention, which we had referred to the Staff for consideration in the ongoing rulemaking regarding the proposed revision to the AP1000 certified design, satisfies the explicit requirements of 10 C.F.R. § 2.309(f)(1), that it does not do so, and therefore NC-WARN has failed to present an otherwise admissible contention. Thus, the hearing petition of NC-WARN is now denied. As a consequence, the grant of standing to the South Carolina Office of Regulatory Staff (SC ORS) and the North Carolina Utilities Commission (NCUC) to participate in the hearing as interested governmental entities under 10 C.F.R. § 2.315(c) that we made in our initial order is now denied as moot.

⁴³ *South Carolina Electric & Gas Co.* (Virgil C. Summer Nuclear Station, Units 2 and 3), LBP-09-2, 69 NRC 87, 100 (2009) (internal footnotes omitted).

⁴⁴ *See, e.g.*, 10 C.F.R. § 52.55(c); 73 Fed. Reg. 20,963; CLI-08-15, 68 NRC at 4.

⁴⁵ CLI-09-8, 69 NRC at 327.

III. ORDER

For the foregoing reasons, it is, this 30th day of June 2009, ORDERED that:

1. NC-WARN Contention TC-1 is inadmissible.
2. The Petition to Intervene of NC-WARN is denied and the proceeding is terminated.
3. The requests of SC ORS and NCUC to participate in any hearing as interested governmental entities under 10 C.F.R. § 2.315(c) are denied as moot.
4. In accordance with the provisions of 10 C.F.R. § 2.311, any appeal to the Commission of the outcome of this Memorandum and Order shall be taken within ten (10) days of the date it is served.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Paul B. Abramson, Chairman
ADMINISTRATIVE JUDGE

Dr. William E. Kastenberg
ADMINISTRATIVE JUDGE

Dr. Michael F. Kennedy
ADMINISTRATIVE JUDGE

Rockville, Maryland
June 30, 2009

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- Abbott Laboratories v. Gardner*, 387 U.S. 136, 148-49 (1967)
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- Abbott Laboratories v. Gardner*, 387 U.S. 136, 149 (1967)
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- Abraham v. Hodges*, 255 F. Supp. 2d 539, 552 n.9 (D.S.C. 2002)
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- Air Courier Conference v. American Postal Workers Union*, 498 U.S. 517 (1991)
standing was not granted where litigant tried to rely on very narrow statutory provisions to challenge the much broader aspects of a statute that had no meaningful relationship to the litigant's situation; LBP-09-6, 69 NRC 433 (2009)
- Airport Neighbors Alliance v. United States*, 90 F.3d 426, 432 (10th Cir. 1996)
reasonable alternatives discussed in an environmental impact statement do not include alternatives that are impractical, that present unique problems, or that cause extraordinary costs; LBP-09-7, 69 NRC 633 (2009)
- Allen v. Wright*, 468 U.S. 737, 751 (1984)
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- Allied-General Nuclear Services* (Barnwell Nuclear Fuel Plant), LBP-74-41, 7 AEC 1015, 1020 & n.11 (1974)
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- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 119 & n.44 (2006)
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- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006)
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- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-07-8, 65 NRC 124, 128-29 (2007)
- the Commission is not obliged to adhere, in all of its proceedings, to the first court of appeals decision to address a controversial question, in that such an obligation would defeat any possibility of a conflict between the Circuits on important issues; LBP-09-2, 69 NRC 104 n.69 (2009)
- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-07-8, 65 NRC 124, 128-34 (2007)
- the National Environmental Policy Act is not an appropriate vehicle for exploring questions about the potential for a terrorist attack upon a proposed nuclear facility; LBP-09-2, 69 NRC 103 (2009)
- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260 (2009)
- in the absence of clear error or abuse of discretion, boards are afforded deference on threshold issues such as contention admissibility; CLI-09-14, 69 NRC 610 (2009)
- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 263 (2009)
- reasonable assurance is based on sound technical judgment of the particulars of a case and on compliance with NRC regulations; LBP-09-6, 69 NRC 422 n.272 (2009)
- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 237, 240-44 (2006)
- boards' legal authority to reformulate contentions is discussed; CLI-09-12, 69 NRC 552 (2009)
- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 244 (2006)
- at the admissibility stage, petitioner does not have to prove its contentions and boards do not adjudicate disputed facts; LBP-09-6, 69 NRC 401 (2009)
- AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-07-17, 66 NRC 327, 340 (2007)
- whether the reasonable assurance standard is satisfied is based on sound technical judgment applied on a case-by-case basis; LBP-09-6, 69 NRC 421-22 n.272 (2009)
- Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 715-24 (2006)
- the hurdles that an entity seeking discretionary intervention must overcome are discussed; LBP-09-6, 69 NRC 438 n.386 (2009)
- Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 719-24 (2006)
- discretionary intervention is denied where petitioner had not demonstrated how its tangible interests would be affected by the proceeding, was essentially seeking only to support the subject of the enforcement action, and had provided what was deemed insufficient information about the contribution its experts could be expected to make; LBP-09-6, 69 NRC 438 (2009)
- Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 720 (2006)
- a board's efforts at contention reformulation did not achieve the goal of clarity, succinctness, and a more efficient proceeding; CLI-09-12, 69 NRC 553 (2009)
- Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 720-21 (2006)
- boards should not add material not raised by a petitioner in order to render a contention admissible; CLI-09-12, 69 NRC 553 (2009)
- Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 725-26 (2006)
- discretionary intervention is denied because the petitioner filed no contentions of its own, although the contention requirement might be viewed as ordinarily inapplicable to enforcement proceedings; LBP-09-6, 69 NRC 438 (2009)
- Arizona Copper Co. v. Gillespie*, 230 U.S. 46, 52 (1913)
- farmer 25 miles downstream could sue to enjoin mining company from depositing slimes, slickens, and tailings into stream used for irrigation; CLI-09-12, 69 NRC 546 n.43 (2009)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991)
- although a board may view a petitioner's supporting information in a light favorable to the petitioner, it cannot do so by ignoring the contention admissibility rules, which require the petitioner (not the board) to supply all of the required elements for a valid intervention petition; CLI-09-7, 69 NRC 260, 275 (2009)

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- if petitioner neglects to provide the requisite support for its contentions, it is not within the board's power to make assumptions of fact that favor the petitioner, nor may the board supply information that is lacking; CLI-09-12, 69 NRC 553 (2009); LBP-09-3, 69 NRC 153 (2009)
- petitioner's failure to provide supporting information for a proffered contention requires that the contention be rejected; LBP-09-3, 69 NRC 153 (2009)
- the initial burden of showing whether a contention meets admissibility standards lies with the petitioner; CLI-09-8, 69 NRC 325 (2009)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991)
- a licensing board is not free to supply missing information or draw factual inferences on the petitioner's behalf; CLI-09-7, 69 NRC 260 n.132 (2009)
- although a board is free to view intervenors' support for its contention in the light most favorable to intervenors, the board may not ignore the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); CLI-09-3, 69 NRC 73 (2009); CLI-09-8, 69 NRC 324 (2009)
- contentions that do not satisfy the requirements of 10 C.F.R. 2.309(f)(1) must be rejected; CLI-09-8, 69 NRC 324 (2009); LBP-09-3, 69 NRC 152 (2009)
- intervenors must provide a clear statement of the basis for their contentions and must submit of supporting information and references to specific documents and sources that establish the validity of the contentions; CLI-09-8, 69 NRC 323 (2009)
- Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), LBP-91-19, 33 NRC 397, 410, *aff'd in part and rev'd in part on other grounds*, CLI-91-12, 34 NRC 149 (1991)
- contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-09-3, 69 NRC 153 (2009)
- Associated General Contractors of North Dakota v. Otter Tail Power Co.*, 611 F.2d 684, 690-91 (1979)
- when an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization for intervention; LBP-09-6, 69 NRC 435 (2009)
- AT&T Corp. v. Federal Communications Commission*, 349 F.3d 692, 699 (D.C. Cir. 2003)
- ripeness for judicial review is determined on the basis of the fitness of the issue for judicial decision and the hardship to the parties of withholding court consideration; LBP-09-6, 69 NRC 397 (2009)
- Availability of Funds for Payment of Intervenor Attorney Fees — Nuclear Regulatory Commission*, 62 Comp. Gen. 692, 695 (1983)
- the terms of section 502 of the Energy and Water Development Appropriations Act of 1982 unambiguously prohibit the use of appropriated funds for payments of any kind to intervenors; LBP-09-1, 69 NRC 44 n.136 (2009)
- Babcock & Wilcox* (Apollo, Pennsylvania Fuel Fabrication Facility), LBP-93-4, 37 NRC 72, 83 (1993)
- the common thread in decisions applying the 50-mile presumption of standing is a recognition of the potential effects at significant distances from the facility of the accidental release of fissionable materials; LBP-09-4, 69 NRC 182 (2009)
- Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 343 n.3 (1998)
- unreviewed board rulings carry no precedential weight; CLI-09-14, 69 NRC 583 n.13 (2009)
- Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 347-48 (1998)
- failure to address the pleading requirements for late-filed contentions is reason enough to reject proposed new contentions; CLI-09-5, 69 NRC 126 (2009)
- Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 349-50 (1998)
- petitioner may not simply wait for the Staff to identify missing information and then ground a new contention on that request; CLI-09-12, 69 NRC 550 (2009)
- Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 350 (1998)
- in some cases, a petitioner may base a new contention on a request for additional information if the RAI or its response raises new information; CLI-09-12, 69 NRC 550 n.66 (2009)

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- Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 90-91 (1983)
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- Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 91 n.5 (1983)
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- Baur v. Veneman*, 352 F.3d 625, 634 (2d Cir. 2003)
federal courts of appeal have failed to reach a consensus on the question whether a risk of future injury must exceed a numerical threshold; LBP-09-4, 69 NRC 184 (2009)
- California Trout v. Schaefer*, 58 F.3d 469, 474 (9th Cir. 1995)
concurrent but independent jurisdiction of two federal agencies is addressed; LBP-09-6, 69 NRC 405 (2009)
- Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-00-11, 51 NRC 297, 299 (2000)
the Commission itself may exercise its discretion to review a licensing board's interlocutory order if the Commission wants to address a novel or important issue; CLI-09-6, 69 NRC 138 (2009)
the Commission's decision to review a licensing board's interlocutory order stems from its inherent supervisory authority over adjudications and in no way implies that parties have a right to seek interlocutory review on that same ground; CLI-09-6, 69 NRC 138 (2009)
- Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Unit 1), LBP-07-11, 66 NRC 41, 52 (2007)
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- Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Unit 1), LBP-07-11, 66 NRC 41, 57-58 (2007)
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- Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-80-12, 11 NRC 514, 516-17 (1980)
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the Commission has inherent supervisory authority over licensing proceedings; CLI-09-7, 69 NRC 284 (2009)
- Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1213 (9th Cir. 2008)
an agency may be excused from complying with NEPA where it has no discretion to prevent, or to refuse to take, the action involved; LBP-09-6, 69 NRC 405 (2009)
- Central Delta Water Agency v. United States*, 306 F.3d 938, 947-48 (9th Cir. 2002)
federal courts of appeal have failed to reach a consensus on the question whether a risk of future injury must exceed a numerical threshold; LBP-09-4, 69 NRC 184 (2009)
- Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190 (D.C. Cir. 1991)
a reviewing agency should take into account the applicant's goals for the project; LBP-09-2, 69 NRC 109 n.86 (2009)
- Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C. Cir. 1991)
a reviewing agency determines whether an alternative is appropriate by looking at the objectives (i.e., purpose and need) of a project sponsor; LBP-09-2, 69 NRC 108 n.84 (2009)
- Citizens Against Burlington, Inc. v. Busey*, [938 F.2d 190, 197 n.6 (D.C. Cir. 1991)
federal agencies are not required under the National Environmental Policy Act to canvas business choices, having neither the expertise nor the proper incentive structure to do so; LBP-09-2, 69 NRC 111 (2009)

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- Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 199 (D.C. Cir. 1991)
an agency cannot redefine the goals of the proposal that arouses the call for action, but rather must evaluate the alternative ways of achieving its goals, shaped by the application at issue and by the function that the agency plays in the decisional process; LBP-09-2, 69 NRC 109 n.86 (2009)
- Citizens Awareness Network, Inc. v. NRC*, 391 F.3d 338, 350 (1st Cir. 2004)
NRC's mandatory disclosure rules for Subpart L proceedings provide meaningful access to information from adverse parties in the form of a system of mandatory disclosure; CLI-09-12, 69 NRC 573 (2009)
- Citizens Awareness Network, Inc. v. NRC*, 391 F.3d 338, 351 (1st Cir. 2004)
cross-examination rules in Subpart L have been upheld and found to meet the requirements of the Administrative Procedure Act; CLI-09-12, 69 NRC 572 (2009)
- Citizens Awareness Network, Inc. v. NRC*, 391 F.3d 338, 351, 352, 355 (1st Cir. 2004)
under Subpart L, mandatory disclosures replace traditional discovery, and witness questioning is conducted by the presiding officer rather than through cross-examination by the parties' representatives, which complies with requirements of the Administrative Procedure Act; CLI-09-7, 69 NRC 278 (2009)
- Citizens Awareness Network, Inc. v. NRC*, 391 F.3d 338, 354 (1st Cir. 2004)
it is not arbitrary and capricious for the Commission to leave the determination of whether cross-examination will further the truth-seeking process in a particular proceeding to the discretion of the individual hearing officer, provided cross-examination is allowed in appropriate instances; CLI-09-7, 69 NRC 278 (2009)
- City of Angoon*, 803 F.2d 1016, 1021 (9th Cir. 1986)
as long as the applicant has not set forth an unreasonably narrow objective of its project, NRC adheres to the principle that when the purpose is to accomplish one thing, it makes no sense to consider alternative ways by which another thing might be accomplished; LBP-09-2, 69 NRC 108 n.84 (2009)
- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 95 (1993)
for construction permit and operating license proceedings, the Commission generally has recognized a presumption in favor of standing for those persons who have frequent contacts with the area near a nuclear power plant; LBP-09-4, 69 NRC 177 (2009)
- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-675, 15 NRC 1105, 1114 (1982)
added delay and expense occasioned by the admission of a contention, even if erroneous, do not alone warrant interlocutory review; CLI-09-6, 69 NRC 133, 135 (2009)
- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-706, 16 NRC 1754, 1758 n.7 (1982)
expenses of any kind do not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.25 (2009)
- Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-805, 21 NRC 596, 600 & n.16 (1985)
even "truly exceptional" expenses would not meet the irreparable impact standard governing a petition for interlocutory review; CLI-09-6, 69 NRC 134 (2009)
- Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241, 244 (1986)
decisions on nontimely filings require a balancing of the eight factors set forth in 10 C.F.R. 2.309(c)(1), the first of which, good cause for failure to file on time, is the most important; CLI-09-7, 69 NRC 262 (2009)
- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), ALAB-116, 6 AEC 258, 258 (1973)
a licensing board referral of an order is unacceptable if it fails to satisfy the standards applicable to such referrals, including whether prompt appellate review is necessary to prevent detriment to the public interest or unusual delay or expense; CLI-09-6, 69 NRC 134 (2009)
- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), ALAB-116, 6 AEC 258, 259 (1973)
interlocutory review of a licensing board decision may be warranted where that decision threatens to impose truly exceptional delay or expense; CLI-09-6, 69 NRC 134 (2009)

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- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), ALAB-185, 7 AEC 240, 241 n.3 (1974)
even “truly exceptional” expenses would not meet the irreparable impact standard governing a petition for interlocutory review; CLI-09-6, 69 NRC 134 (2009)
- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), ALAB-616, 12 NRC 419, 421 (1980)
to meet its evidentiary burden, applicant is not obliged to meet an absolute standard but to provide reasonable assurance that public health, safety, and environmental concerns were protected, and to demonstrate that assurance by a preponderance of the evidence; CLI-09-7, 69 NRC 263 (2009)
- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 188 (1999)
although Article III of the Constitution does not constrain the NRC hearing process, and NRC hearings therefore are not governed by judicially created standing doctrine, the Commission nonetheless has generally looked to judicial concepts of standing where appropriate to determine those interests affected within the meaning of section 189a of the AEA; LBP-09-1, 69 NRC 25 n.54 (2009)
- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 189 (1999)
a materials license amendment proceeding is not an appropriate forum to throw open an opportunity to engage in a free-ranging inquiry into the character of the licensee; LBP-09-1, 69 NRC 49 (2009)
- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 191 (1999)
petitioner must provide some plausible chain of causation or some scenario suggesting how license amendments would result in a distinct new harm or threat in order to establish standing; LBP-09-4, 69 NRC 178 n.20 (2009)
- Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 194 (1999)
the burden of setting forth a clear and coherent argument is on the petitioner; CLI-09-7, 69 NRC 277 n.230 (2009)
- Communities, Inc. v. Busey*, 956 F.2d 619, 627 (6th Cir. 1992)
reasonable alternatives discussed in an environmental impact statement do not include alternatives that are impractical, that present unique problems, or that cause extraordinary costs; LBP-09-7, 69 NRC 633 (2009)
- Connecticut Yankee Atomic Power Co.* (Haddam Neck Plant), CLI-01-25, 54 NRC 368, 374 (2001)
mere increase in the burden of litigation does not constitute serious and irreparable harm; CLI-09-6, 69 NRC 136 n.29 (2009)
- 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)
discretionary intervention is granted where petitioner’s previous experience would provide valuable insight in developing a sound record; LBP-09-6, 69 NRC 438 n.386 (2009)
- Consolidated Edison Co. of New York* (Indian Point, Unit 2), LBP-82-25, 15 NRC 715, 734 (1982)
there are certain organizations for which member authorization for organizational standing might be presumed; LBP-09-6, 69 NRC 434 (2009)
- Consolidated Edison Co. of New York* (Indian Point, Units 1 and 2), CLI-01-8, 53 NRC 225, 229 (2001)
litigation inevitably results in the parties’ loss of both time and money; CLI-09-6, 69 NRC 136 n.29 (2009)
- Consolidated Energy Co. of New York* (Indian Point, Units 1 and 2), CLI-01-19, 54 NRC 109, 143 (2001)
NRC decommissioning funding regulations are intended to minimize the administrative effort and provide reasonable assurance that funds will be available to carry out decommissioning in a manner that protects public health and safety; LBP-09-4, 69 NRC 198 (2009)
- Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409 (2007)
interests that a representative organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor the requested relief must require an individual member to participate in the organization’s legal action; LBP-09-4, 69 NRC 178 (2009)

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- neither an organizational petitioner's contentions nor the requested relief must require the participation of an individual member in the proceeding; LBP-09-6, 69 NRC 382 (2009)
- the member of a organization that seeks standing must qualify for standing in his or her own right, and the interests that the organization seeks to protect must be germane to its own purpose; LBP-09-6, 69 NRC 382 (2009)
- Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409-10 (2007)
- an organization must submit written authorization from a member whose interests it purports to represent in order to have a concrete indication that the member wishes to have the organization represent his interests there; CLI-09-9, 69 NRC 343 (2009)
- Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409-11 (2007)
- Commission precedents describing the requirements for establishing representational and organizational standing are longstanding; LBP-09-5, 69 NRC 311 n.6 (2009)
- Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 410 (2007)
- when an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization for intervention; LBP-09-6, 69 NRC 435 (2009)
- Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 414 (2007)
- NRC pleading standards do not allow for mere notice pleading, or the filing of general, vague, or unsupported claims to be elaborated at some later time; CLI-09-5, 69 NRC 120 n.21 (2009)
- Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-22, 65 NRC 525, 527-28 (2008)
- it is not acceptable in NRC practice for petitioner to claim standing based on vague assertions, and when that fails, to attempt to repair the defective pleading with fresh details offered for the first time in its reply; LBP-09-2, 69 NRC 94 nn.18, 20 (2009)
- Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 345 (1973)
- once a party has introduced sufficient evidence to establish a *prima facie* case, the burden of proof then shifts to the applicant who must provide sufficient rebuttal to satisfy the board that it should reject the contention as a basis for denial of the permit or license; CLI-09-7, 69 NRC 269 (2009)
- Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-395, 5 NRC 772, 779 (1977)
- expenses of any kind do not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.25 (2009)
- Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 163 (1978)
- costs for a project are relevant for the determination only if an environmentally preferable option is identified; LBP-09-2, 69 NRC 111 (2009)
- Covington v. Jefferson County*, 358 F.3d 626, 638-41 (9th Cir. 2004)
- to establish injury-in-fact, it is sufficient to allege that defendant's actions caused reasonable concern of injury to the plaintiff; LBP-09-4, 69 NRC 185 n.44 (2009)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 336 (2009)
- the Commission generally defers to board rulings on contention admissibility in the absence of clear error or abuse of discretion; CLI-09-14, 69 NRC 584 (2009)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 351 (2009)
- if, following publication of the Staff's environmental review document, petitioners continue to believe that the consultations were not performed as required, they may proffer such a contention pursuant to section 2.309(f)(2); CLI-09-12, 69 NRC 566 n.141 (2009)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 362-64 (2009)
- contention based on a recent study suggesting a link between low levels of arsenic in drinking water and diabetes is rejected; CLI-09-12, 69 NRC 561 n.112 (2009)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691, 720-21 (2008)
- it is appropriate to assess both the fitness of the issue for judicial decision and the hardship to the parties of withholding court consideration; LBP-09-1, 69 NRC 38-39 n.114 (2009)

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- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691, 745 (2008)
the requirement of 10 C.F.R. 40.9(a) that applicant/licensee provide information that is accurate and complete in all material respects comes into play in enforcement proceedings, but this does not place the issue beyond consideration in a licensing proceeding; LBP-09-1, 69 NRC 32 n.83 (2009)
- Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691, 760-61 (2008)
licensing boards may resolve purely legal issues by asking the parties for immediate briefing on the issue in question; LBP-09-4, 69 NRC 201 n.118 (2009)
- Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 271, 276-89 (2008)
establishing standing for a contention involves a showing of a concrete and particularized injury that is fairly traceable to the challenged action and likely to be redressed by a favorable decision; LBP-09-1, 69 NRC 24 (2009)
- Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 278 (2008)
although petitioner's reply cannot be used to remedy a deficient petition, because opposing parties have no opportunity to respond, petitioner asks the board to apply a standard of "fundamental fairness," because petitioner filed its initial petition without the assistance of counsel; LBP-09-6, 69 NRC 426 (2009)
- Curators of the University of Missouri* (TRUMP-S Project), CLI-95-1, 41 NRC 71, 121-22 (1995)
contentions that question the Staff's review are improper; CLI-09-14, 69 NRC 602 (2009)
- Curators of the University of Missouri* (TRUMP-S Project), CLI-95-1, 41 NRC 71, 165 (1995)
intervenor is not entitled to litigate common defense and security considerations under 10 C.F.R. 40.32(d) unless the specific common defense and security risk asserted is reasonably related to, and would arise as a direct result of, the specific license amendments that the Commission is asked to approve; LBP-09-1, 69 NRC 37 (2009)
- Curators of the University of Missouri* (TRUMP-S Project), CLI-95-1, 41 NRC 71, 165-66 (1995)
intervenor's nuclear proliferation concern is premised upon future third-party activities that are unrelated to the specific activities authorized by license amendments and is not litigable because it is not a direct consequence of the proposed license amendments or the Commission's approval thereof; LBP-09-1, 69 NRC 37-38 (2009)
- DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 340, 349 (2006)
standing on the part of plaintiffs is found at a bare minimum as municipal taxpayers under case law in which the peculiar relation of the corporate taxpayer to the corporation distinguishes such a case from the general bar on taxpayer suits; LBP-09-1, 69 NRC 23 (2009)
- DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 349, 354 (2006)
status as municipal taxpayers does not give plaintiffs standing to challenge the state franchise tax credit; LBP-09-1, 69 NRC 24 (2009)
- DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 352 (2006)
plaintiff must demonstrate standing for each claim he seeks to press and for each form of relief that is sought; LBP-09-1, 69 NRC 20-21, 24 (2009)
- DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 353 n.5 (2006)
once a litigant has standing to request invalidation of a particular agency action, it may do so by identifying all grounds on which the agency may have failed to comply with its statutory mandate; LBP-09-1, 69 NRC 24 n.52 (2009)
- Davis v. Federal Election Commission*, 128 S. Ct. 2759, 2768-69 (2008)
a candidate who had standing to challenge one statutory provision of a law would not necessarily have standing to challenge a different provision of that same law; CLI-09-9, 69 NRC 340 (2009)
- Davis v. Federal Election Commission*, 128 S. Ct. 2759, 2769 (2008)
standing is not dispensed in gross, but rather plaintiff in federal court must demonstrate standing for each claim he seeks to press and for each form of relief that is sought; LBP-09-1, 69 NRC 19, 20, 21-22 (2009)

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- Defenders of Wildlife v. U.S. Environmental Protection Agency*, 420 F.3d 946, 963 (9th Cir. 2005),
overruled on other grounds sub nom. National Association of Home Builders v. Defenders of Wildlife,
127 S. Ct. 2518 (2007)
an agency may be excused from complying with the National Environmental Policy Act where it has
no discretion to prevent, or to refuse to take, the action involved; LBP-09-6, 69 NRC 405 (2009)
- Department of Transportation v. Public Citizen*, 541 U.S. 752, 767 (2004)
inherent in the National Environmental Policy Act and its implementing regulations is a rule of
reason, which ensures that agencies determine whether and to what extent to prepare an
environmental impact statement based on the usefulness of any potential new information to the
decision-making process; LBP-09-4, 69 NRC 204 n.126 (2009)
it would be inconsistent with the National Environmental Policy Act's rule of reason to require that
the cumulative impacts analysis individually analyze the effects of remote facilities absent a
demonstration that such additional effort would lead to a different conclusion; LBP-09-4, 69 NRC
203-04 n.126 (2009)
- Department of Transportation v. Public Citizen*, 541 U.S. 752, 770 (2004)
an agency may be excused from complying with NEPA where it has no discretion to prevent, or to
refuse to take, the action involved; LBP-09-6, 69 NRC 404 (2009)
- Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 2), ALAB-707, 16 NRC 1760, 1764-65 (1982)
information in the public domain for 6 months does not establish good cause for late filing; CLI-09-5,
69 NRC 126 (2009)
- Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 2), LBP-79-1, 9 NRC 73, 87-88 (1979)
discretionary intervention is granted where petitioner's previous experience would provide valuable
insight in developing a sound record; LBP-09-6, 69 NRC 438 n.386 (2009)
- Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-09-4, 69 NRC 80, 84 (2009)
the Commission declines to suspend a proceeding pending outcome of the design certification process;
LBP-09-3, 69 NRC 157 n.9 (2009)
the standard for satisfying the likelihood-of-standing criterion in the context of filing a request for
SUNSI entails relatively minimal effort; LBP-09-5, 69 NRC 311 (2009)
- Detroit Edison Co.* (Greenwood Energy Center, Units 2 and 3), ALAB-247, 8 AEC 936 (1974)
NRC's environmental analysis in connection with licensing nuclear facilities should extend to related
offsite construction projects such as transmission line routes extending 90 miles beyond the nuclear
facility; LBP-09-6, 69 NRC 404 (2009)
offsite health and safety impacts caused by onsite activities can support the admissibility of a
contention; LBP-09-6, 69 NRC 435 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207,
213 (2003)
the rules on contention admissibility are strict by design; LBP-09-4, 69 NRC 189 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207,
218 (2003)
a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is
about to become, the subject of a rulemaking, is inadmissible; LBP-09-2, 69 NRC 97 n.37 (2009);
LBP-09-8, 69 NRC 739 n.13 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), LBP-03-12, 58 NRC 75
(2003)
contentions are inadmissible where petitioner offers only bald assertions and provides little support for
them; LBP-09-6, 69 NRC 415 n.234 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231,
234 (2008)
petitioners may not skirt contention rules by initially filing unsupported contentions, and later recasting
or modifying their contentions on appeal with new arguments never raised before the board;
CLI-09-5, 69 NRC 123 (2009)
the Commission defers to a board's rulings on standing and contention admissibility in the absence of
clear error or abuse of discretion; CLI-09-5, 69 NRC 119 (2009); CLI-09-8, 69 NRC 324 (2009);
CLI-09-9, 69 NRC 336 (2009); CLI-09-14, 69 NRC 584 (2009)

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- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 237-38 (2008)
a new contention will necessarily fail if it attacks the quality of the Staff's review rather than identifying a deficiency in the application; CLI-09-5, 69 NRC 123 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 243 (2008)
a license amendment adjudication is not the forum to address Petitioners' concern about past radiological releases; CLI-09-12, 69 NRC 560 n.108 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 119 (2009)
the Commission defers to a board's rulings on standing and contention admissibility in the absence of clear error or abuse of discretion; CLI-09-8, 69 NRC 324 (2009); CLI-09-9, 69 NRC 336 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001)
compared to notice pleading in the federal courts, NRC's contention requirements have correctly been called "strict by design," but they are not intended to require the impossible; LBP-09-6, 69 NRC 417 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358-59 (2001)
the rules on contention admissibility are strict by design; LBP-09-4, 69 NRC 189 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 365-66 (2001)
as long as petitioner alleges, with sufficient support, that applicant's bad character or lack of integrity has direct and obvious relevance to the licensing action at issue in the proceeding, a character-based contention is admissible; LBP-09-6, 69 NRC 466, 467, 473 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 365-67 (2001)
historical actions by an applicant or licensee are not relevant to its current fitness unless there is some direct and obvious relationship between the asserted character issues and the licensing action in dispute; CLI-09-14, 69 NRC 606 n.149 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 366 (2001)
license amendment proceedings are not a forum to address past violations or accidents that have no direct bearing on the proposed amendment; CLI-09-12, 69 NRC 560 (2009)
strict limits are placed on contentions regarding character and integrity issues such that they must present an ongoing pattern that has a direct and obvious relationship to the licensing action at issue in order to be admitted; LBP-09-6, 69 NRC 467 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637 (2004)
the Commission will affirm decisions on the admissibility of contentions where the appellant 'points to no error of law or abuse of discretion; CLI-09-7, 69 NRC 260 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 644 n.56 (2004)
requirements for contention admissibility are described in 10 C.F.R. 2.309(f); CLI-09-5, 69 NRC 122 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560 (2005)
rule waivers are not granted where the circumstances on which the waiver's proponent relies are common to a large class of applicants or facilities; CLI-09-3, 69 NRC 75 n.38 (2009)
- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 564 (2005)
good cause is the most important factor to be weighed in allowing an untimely filing; LBP-09-6, 69 NRC 477 (2009)

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- Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 564-65 (2005)
decisions on nontimely filings require a balancing of the eight factors set forth in 10 C.F.R. 2.309(c)(1), the first of which, good cause for failure to file on time, is the most important; CLI-09-7, 69 NRC 262 (2009)
- Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 268-69 (2004)
contentions challenging the Waste Confidence Rule are inadmissible; LBP-09-4, 69 NRC 217 (2009)
- Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 270 (2004)
absent a showing of special circumstances, under 10 C.F.R. 2.335(b), waste confidence matters must be addressed through Commission rulemaking; LBP-09-4, 69 NRC 218 (2009)
- Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 271, 276 (2004)
boards' legal authority to reformulate contentions is discussed; CLI-09-12, 69 NRC 553 (2009)
- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-7, 55 NRC 205, 217 (2002)
NRC regulations contemplate approval of construction and approval for operation of a fuel fabrication facility; CLI-09-2, 69 NRC 59 (2009)
- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 415 (2001), *rev'd on other grounds*, CLI-02-24, 56 NRC 335 (2002)
petitioner organizations have established standing based on their members' proximity to transportation routes, even where it was not possible to predict with accuracy which of its members were most likely to be harmed or the extent of the damage; LBP-09-6, 69 NRC 425 (2009)
- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 422 (2001)
a licensing board is not free to supply missing information or draw factual inferences on the petitioner's behalf; CLI-09-7, 69 NRC 260 n.132 (2009)
if petitioner neglects to provide the requisite support for its contentions, it is not within the board's power to make assumptions of fact that favor the petitioner, nor may the board supply information that is lacking; LBP-09-3, 69 NRC 153 (2009)
- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-03-14, 58 NRC 104 (2003)
payments from the NRC to an intervenor's expert witness, which are required by 10 C.F.R. 2.740a(h), are not barred by section 502 of the Energy and Water Development Appropriations Act; LBP-09-1, 69 NRC 44 n.136 (2009)
- Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-03-14, 58 NRC 104, 112 (2003)
assistance to all parties that obtain expert witnesses is required because the rule treats all parties the same; LBP-09-1, 69 NRC 44 n.136 (2009)
- Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 68 NRC 431, 438-39 (2008)
an individual may satisfy standing requirements by demonstrating that his or her residence or activities are within the geographical area that might be affected by an accidental release of fission products, and in proceedings involving nuclear power plants this area has been defined as being within a 50-mile radius of such a plant; LBP-09-4, 69 NRC 178 (2009)
- Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 68 NRC 431, 440-42 (2008)
a thorough discussion of relevant case law on the criteria for admission of contentions is presented; LBP-09-2, 69 NRC 95 (2009) *Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 68 NRC 431, 456-57 (2008)
in light of the plain language of the rule and its regulatory history, the Waste Confidence Rule applies to combined license proceedings; LBP-09-4, 69 NRC 218 (2009)

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- Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-05-14, 61 NRC 359, 363-64 (2005)
if a board determines that a purely legal issue can be decided through regulatory interpretation or examination of NRC case law, it will rule on the contention; LBP-09-4, 69 NRC 201 (2009)
if a board determines that the regulations are ambiguous and that this is ultimately an NRC policy issue, it will refer the contention to the Commission; LBP-09-4, 69 NRC 201 (2009)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-14, 55 NRC 278, 293-94 (2002)
contention related to facility's possible future use of mixed oxide fuel is irrelevant to and outside the scope of a license renewal application that did not request approval for use of such fuel, despite evidence that applicant might request approval to use such fuel in a separate, future proceeding; CLI-09-12, 69 NRC 570 n.160 (2009)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-14, 55 NRC 278, 294 (2002)
to the extent a contention concerns future changes to the combined license application that may come about as a result of amendments to the certified design, it is inadmissible; CLI-09-8, 69 NRC 325 n.36 (2009)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 9-10 (2002)
a factual dispute cannot be resolved against petitioners at the contention admissibility stage, especially when petitioners' version of the facts is supported by sworn affidavits and applicant's version is not; LBP-09-6, 69 NRC 418 (2009)
to require petitioners to rerun a model themselves, in order to demonstrate the individual or collective effects of the defects they allege, would improperly require boards to adjudicate the merits of contentions before admitting them; LBP-09-6, 69 NRC 416 (2009)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 379 (2002)
the scope of an admitted contention is defined by its bases; CLI-09-12, 69 NRC 553 (2009)
- 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)
facts relied upon in a contention of omission need not show that the facility cannot be safely operated, but rather that the application is incomplete; LBP-09-4, 69 NRC 190 (2009)
if applicant cures the omission, then a contention of omission will become moot; LBP-09-4, 69 NRC 190 (2009)
petitioner's burden on a contention of omission is only to show the facts necessary to establish that the application omits information that should have been included; LBP-09-4, 69 NRC 190 (2009)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 386 (2002)
hearing petitioners have an ironclad obligation to examine the publicly available documentary material pertaining to the facility in question with sufficient care to enable the petitioner to uncover any information that could serve as the foundation for a specific contention; CLI-09-2, 69 NRC 65 n.47 (2009)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419 (2003)
contentions are inadmissible where intervenors did not perform the bare minimum preparations and there was no attempt to perform any independent analysis; LBP-09-6, 69 NRC 415 n.234 (2009)
- 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)
Commission rules bar contentions where petitioners have only what amounts to generalized suspicions, hoping to substantiate them later; LBP-09-6, 69 NRC 390 (2009)
- 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 and timeliness rules require a high level of discipline and preparation by petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the outset; CLI-09-7, 69 NRC 272 (2009)

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- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 431 (2003)
NRC adjudicatory hearings are not environmental impact statement editing sessions; CLI-09-11, 69 NRC 533 (2009)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), LBP-02-4, 55 NRC 49, 66 (2002)
expert opinion must not be limited to bald conclusory statements such as that the application under consideration is “deficient,” “inadequate,” or “wrong”; LBP-09-6, 69 NRC 411 (2009)
- Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), LBP-03-17, 58 NRC 221 (2003)
contention is inadmissible where intervenors did not show that a model was defective or used incorrectly but simply that a different result would be achieved using their own model; LBP-09-6, 69 NRC 415 n.234 (2009)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999)
a new contention will necessarily fail if it attacks the quality of the Staff’s review rather than identifying a deficiency in the application; CLI-09-5, 69 NRC 123 (2009)
contention pleading rules are designed to ensure both that only well-defined issues are admitted for hearing and that parties admitted to litigate sophisticated technical issues are qualified to do so; CLI-09-12, 69 NRC 552 (2009)
contentions must have at least some minimal factual and legal foundation in support; LBP-09-6, 69 NRC 453 (2009)
in an earlier era, boards admitted and litigated numerous contentions that appeared to be based on little more than speculation; LBP-09-6, 69 NRC 453 (2009)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334-35 (1999)
the rules on contention admissibility are strict by design; LBP-09-4, 69 NRC 189 (2009)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 335 (1999)
in revising its contention admissibility requirements, the Commission sought to preclude a contention from being admitted where an intervenor has no facts to support its positions, but rather hopes to use discovery or cross-examination as a fishing expedition; LBP-09-6, 69 NRC 453 (2009)
the contention requirements were never intended to be turned into a fortress to deny intervention; LBP-09-6, 69 NRC 453 (2009)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 336-37 (1999)
contention that the mere existence of numerous requests for additional information constituted *prima facie* evidence that the application is incomplete is rejected; CLI-09-12, 69 NRC 550 n.65 (2009)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 338 (1999)
Commission rules bar contentions where petitioners have only what amounts to generalized suspicions, hoping to substantiate them later; LBP-09-6, 69 NRC 390 (2009)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 338-39 (1999)
a person who invokes the right to participate in an NRC proceeding also voluntarily accepts the obligations attendant upon such participation; CLI-09-8, 69 NRC 329 (2009)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 338-39 (1999)
obligations of parties include participation within the schedule established for the proceeding despite the burden on a participant’s time and resources and despite uncertainties engendered by the potential for new information; CLI-09-8, 69 NRC 329 n.53 (2009)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 342 (1999)
petitioners are not required to provide expert support at the contention admissibility stage, although expert support is certainly one means to supply the basis and specificity NRC rules do require; CLI-09-12, 69 NRC 553 (2009)
- Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)
if petitioners are dissatisfied with NRC’s generic approach to a problem, their remedy lies in the rulemaking process, not in adjudication; LBP-09-4, 69 NRC 218 (2009)
- Duke Power Co. v. Carolina Environmental Study Group*, 438 U.S. 59, 62-68, 81-82 (1978)
in deciding the ripeness question, it is important to look to whether delayed resolution of issues would foreclose any relief from the present injury suffered by appellees; LBP-09-1, 69 NRC 38 n.114 (2009)

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- Duke Power Co. v. Carolina Environmental Study Group*, 438 U.S. 59, 72-78 (1978)
not building a proposed nuclear power plant satisfies the redressability criterion for standing; CLI-09-9, 69 NRC 340 (2009)
- Duke Power Co. v. Carolina Environmental Study Group*, 438 U.S. 59, 78-79 (1978)
a “nexus” requirement is not required for cases other than taxpayer lawsuits; CLI-09-9, 69 NRC 340 (2009)
- Duke Power Co. v. Carolina Environmental Study Group*, 438 U.S. 59, 78-81 (1978)
a requirement for a nexus between the injury claimed and the right being asserted was rejected; LBP-09-1, 69 NRC 18 (2009)
- Duke Power Co. v. Carolina Environmental Study Group*, 438 U.S. 59, 81-82 (1978)
it is appropriate to assess both the fitness of the issue for judicial decision and the hardship to the parties of withholding court consideration; LBP-09-1, 69 NRC 39 n.114 (2009)
- Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460, 467 (1982)
a licensing board is not authorized to admit conditionally, for any reason, a contention that falls short of meeting the specificity requirements set forth in NRC procedural rules; CLI-09-2, 69 NRC 63 n.33 (2009)
- Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-768, 19 NRC 988, 992 & n.14 (1984)
even “truly exceptional” expenses would not meet the irreparable impact standard governing a petition for interlocutory review; CLI-09-6, 69 NRC 134 (2009)
- Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985)
all proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to the licensing board; LBP-09-3, 69 NRC 153 (2009)
the scope of a proceeding is generally established by the Commission in its initial hearing notice and any order referring the proceeding to a licensing board; LBP-09-6, 69 NRC 462 (2009)
- Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1048 (1983)
a person who invokes the right to participate in an NRC proceeding also voluntarily accepts the obligations attendant upon such participation; CLI-09-8, 69 NRC 329 (2009)
- Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983)
should NRC Staff provide a different analysis in its draft environmental statement than applicant in its environmental report, there will be ample opportunity to either amend or dispose of contentions based on the ER; LBP-09-4, 69 NRC 228 (2009)
when environmental contentions are involved, the burden of proof shifts to the Staff, because the NRC, not an applicant, has the burden of complying with the National Environmental Policy Act; LBP-09-7, 69 NRC 635 (2009)
- Duke Power Co.* (Perkins Nuclear Station, Units 1, 2, and 3), LBP-82-81, 16 NRC 1128, 1140-41 (1982)
licensing boards have awarded payment of litigation fees and expenses from a licensee to an intervenor if there has been legal harm to the intervenors caused by some activity or action of the licensee; LBP-09-1, 69 NRC 43 n.134 (2009)
- Edlow International Co.*, CLI-76-6, 3 NRC 563, 574, 578, 589-91 (1976)
standing as of right is not available in export license proceedings but the Commission has exercised its discretion to hold an open legislative-type hearing; LBP-09-1, 69 NRC 39 n.115 (2009)
- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-07-2, 65 NRC 10, 12 (2007)
the Commission generally disfavors interlocutory, piecemeal appeals; CLI-09-6, 69 NRC 137 n.38 (2009)
the rejection or admission of a contention, where the petitioner has been admitted as a party and has other contentions pending, neither constitutes serious and irreparable impact, nor affects the basic structure of the proceeding in a pervasive and unusual manner; CLI-09-9, 69 NRC 365 (2009)
- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257 (2006)
a well-supported contention is admissible; LBP-09-6, 69 NRC 415 n.234 (2009)
- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 341 (2006)
boards’ legal authority to reformulate contentions is discussed; CLI-09-12, 69 NRC 552 (2009)

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- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 355 (2006)
petitioner must provide documents or other factual information or expert opinion that sets forth the necessary technical analysis to show why the proffered bases support its contention; LBP-09-4, 69 NRC 216 (2009)
- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 356 (2006)
petitioner does not have to provide a complete or final list of its experts or evidence or prove the merits of its contention at the admissibility stage; LBP-09-6, 69 NRC 410 (2009)
the requirement under 10 C.F.R. 2.309(f)(1)(v) 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 text that provide such reasons; LBP-09-4, 69 NRC 195, 207 (2009)
- Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-08-22, 68 NRC 590, 648 (2008)
reasonable assurance requires a licensing board to take all relevant facts and circumstances into account; LBP-09-6, 69 NRC 422 n.272 (2009)
- Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), CLI-08-7, 67 NRC 187, 192 (2008)
the rejection or admission of a contention, where the petitioner has been admitted as a party and has other contentions pending, neither constitutes serious and irreparable impact, nor affects the basic structure of the proceeding in a pervasive and unusual manner; CLI-09-9, 69 NRC 365 (2009)
- Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43 (2008)
a contention that is not well supported by the expert is not admissible; LBP-09-6, 69 NRC 415 n.234 (2009)
- Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43, 110-13 (2008)
contention challenging a particular use of a straight-line Gaussian air dispersion model in the applicant's SAMA analysis is admissible in a license renewal proceeding; CLI-09-11, 69 NRC 533 n.27 (2009)
- Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 261 (2008)
it is not acceptable in NRC practice for petitioner to claim standing based on vague assertions, and when that fails, to attempt to repair the defective pleading with fresh details offered for the first time in its reply; LBP-09-2, 69 NRC 94 nn.18, 20 (2009)
- Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 261 n.30 (2008)
petitioner's reply must narrowly focus upon the legal and factual arguments first presented in its petition and cannot be used as a vehicle to remedy a very deficient petition to which opposing parties have no opportunity to respond; LBP-09-6, 69 NRC 424 n.283 (2009)
- Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), CLI-07-1, 65 NRC 1, 3 (2007)
NRC rules set a high bar for interlocutory review petitions; CLI-09-6, 69 NRC 137 n.38 (2009)
- Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), CLI-07-16, 65 NRC 371, 385 n.69 (2007)
absent delegated authority, licensing boards lack authority to direct the Staff's nonadjudicatory actions; CLI-09-2, 69 NRC 63 (2009)
- Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 552 (2004)
when assessing whether petitioner has set forth a sufficient interest to intervene, licensing boards generally use judicial concepts of standing; LBP-09-4, 69 NRC 177 (2009)
- Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 555 (2004)
petitioner need not prove its case at the contention admissibility stage of the proceeding; LBP-09-4, 69 NRC 195 (2009)
petitioner's issues will be ruled inadmissible if petitioner has offered no tangible information, no experts, no substantive affidavits, but instead only bare assertions and speculation; LBP-09-4, 69 NRC 216 (2009)
- Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 560 n.16 (2004)
wholesale endorsement of pleadings by an expert affiant seriously undermines the board's ability to differentiate between the legal pleadings and the facts and opinions expressed by the expert; CLI-09-7, 69 NRC 292 n.318 (2009)

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- Envirocare of Utah, Inc. v. NRC*, 194 F.3d 72 (D.C. Cir. 1999)
although Article III of the Constitution does not constrain the NRC hearing process, and NRC hearings therefore are not governed by judicially created standing doctrine, the Commission nonetheless has generally looked to judicial concepts of standing where appropriate to determine those interests affected within the meaning of section 189a of the Atomic Energy Act; LBP-09-1, 69 NRC 25 n.54 (2009)
- Envirocare of Utah, Inc. v. NRC*, 194 F.3d 72, 75-76 (D.C. Cir. 1999)
although licensing boards are encouraged to apply contemporaneous judicial concepts of standing, the ultimate test is not whether the NRC's test for standing conforms to that applied by federal courts, but whether the NRC's test represents a reasonable construction of section 189a of the Atomic Energy Act; LBP-09-4, 69 NRC 186 (2009)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-04-31, 60 NRC 461, 465-66 (2004)
the Commission is generally reluctant to consider interlocutory appeals; CLI-09-2, 69 NRC 61 (2009)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-04-31, 60 NRC 461, 466 (2004)
added delay and expense occasioned by the admission of a contention, even if erroneous, do not alone warrant interlocutory review; CLI-09-6, 69 NRC 133, 135 (2009)
routine rulings on contention admissibility are usually not occasions for the Commission to exercise its authority to step into ongoing licensing board proceedings and undertake interlocutory review; CLI-09-3, 69 NRC 72 (2009); CLI-09-6, 69 NRC 133 n.16, 138 (2009)
the Commission has authority to review board rulings *sua sponte*, in the exercise of its inherent supervisory authority over NRC adjudications; CLI-09-3, 69 NRC 72 (2009)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-04-31, 60 NRC 461, 466-67 (2004)
the rejection or admission of a contention, where the petitioner has been admitted as a party and has other contentions pending, neither constitutes serious and irreparable impact, nor affects the basic structure of the proceeding in a pervasive and unusual manner; CLI-09-9, 69 NRC 365 (2009)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801 (2005)
energy conservation or efficiency or, as it is sometimes called, demand-side management, is not a reasonable alternative that would advance the goals of the applicant's project; LBP-09-2, 69 NRC 109 n.86 (2009)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 808 (2005)
intervenor are obliged to offer specific contentions on material issues, supported by 'alleged facts or expert opinion; CLI-09-8, 69 NRC 323 (2009)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 NRC 229, 241 (2004)
a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-09-8, 69 NRC 739 n.13 (2009)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 NRC 229, 245, 252, *review denied*, CLI-04-31, 60 NRC 461 (2004)
boards' legal authority to reformulate contentions is discussed; CLI-09-12, 69 NRC 552-53 (2009)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 NRC 229, 246-47 (2004)
contentions challenging the Waste Confidence Rule are inadmissible; LBP-09-4, 69 NRC 217 (2009)
- Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-05-19, 62 NRC 134, 158 (2005)
to the extent that petitioner asserts that applicant had an obligation to examine other alternatives, the obligation falls squarely upon petitioner to specify such alternatives and indicate why they are appropriate; LBP-09-2, 69 NRC 111 (2009)
- Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003)
although a petitioner does not have to prove its contention at the admissibility stage, mere notice pleading is insufficient; LBP-09-6, 69 NRC 390 (2009)
expert opinion must not be limited to bald conclusory statements such as that the application under consideration is "deficient," "inadequate," or "wrong"; LBP-09-6, 69 NRC 411 (2009)
neither mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention; LBP-09-3, 69 NRC 153 (2009)

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- petitioner's issues will be ruled inadmissible if petitioner has offered no tangible information, no experts, no substantive affidavits, but instead only bare assertions and speculation; LBP-09-4, 69 NRC 216 (2009)
- Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 204-05 (2003)
- simply attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention; LBP-09-3, 69 NRC 154 (2009)
- Federal Election Commission v. Akins*, 524 U.S. 11, 20 (1998)
- petitioner must meet the prudential standing requirement by showing that the asserted interest arguably falls within the zone of interests protected by the governing law; LBP-09-4, 69 NRC 177 (2009)
- Florida Audubon Society v. Bensen*, 94 F.3d 658, 666 (D.C. Cir. 1996)
- when petitioner claims an increased risk of future harm, that harm must be substantially probable to constitute an injury-in-fact for the purposes of standing; LBP-09-4, 69 NRC 183 (2009)
- Florida Power & Light Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2, et al.), CLI-06-21, 64 NRC 30, 33 (2006)
- requirements for untimely filings and late-filed contentions are stringent; CLI-09-7, 69 NRC 260 (2009)
- Florida Power & Light Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2, et al.), CLI-06-21, 64 NRC 30, 34 (2006)
- failure to comply with pleading requirements for late filings constitutes sufficient grounds for rejecting intervention and hearing requests; CLI-09-7, 69 NRC 260-61 (2009)
- NRC pleading standards do not allow for mere notice pleading, or the filing of general, vague, or unsupported claims to be elaborated on at some later time; CLI-09-5, 69 NRC 120 n.21 (2009)
- Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989)
- all proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to the licensing board; LBP-09-3, 69 NRC 153 (2009)
- in cases involving the possible construction or operation of a nuclear power reactor, proximity to the proposed facility has been considered sufficient to establish the requisite standing elements; LBP-09-3, 69 NRC 149 (2009)
- persons living within a 50-mile radius of a proposed new reactor face a realistic threat of harm if a release of radioactive material were to occur from the facility and thus are not required to make individual showings of injury, causation, and redressability; LBP-09-4, 69 NRC 183 (2009)
- presumption of standing applies in proceedings for nuclear power plant construction permits, operating licenses, or significant amendments thereto; LBP-09-4, 69 NRC 177 n.19 (2009)
- proximity factors as a standing requirement are discussed; LBP-09-2, 69 NRC 94 n.17 (2009)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), 4 AEC 9, 12 (1967)
- with respect to a production or utilization facility, foreign ownership and control would be inimical to the common defense and security; CLI-09-9, 69 NRC 360 n.153 (2009)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), 4 AEC 9, 12-13 (1967)
- the common defense and security standard refers principally to the safeguarding of special nuclear material, the absence of foreign control over the applicant, the protection of restricted data, and the availability of special nuclear material for defense needs; CLI-09-9, 69 NRC 360 n.153 (2009)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), 4 AEC 787, 788 (1972)
- petitioner may not challenge applicable statutory requirements as part of an administrative adjudication; CLI-09-14, 69 NRC 605 (2009)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 8-9 (2001)
- even if timely, a challenge to the adequacy of the acceptance criteria or any other component of the current licensing basis is not within the scope of the license renewal proceeding; CLI-09-7, 69 NRC 272 (2009)

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- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 12, 14-15 (2001)
NRC rules recognize the possibility of new and significant information calling into question prior generic findings, and a petition for rulemaking is one means to alert the Commission to new information that may render a GEIS finding incorrect; CLI-09-10, 69 NRC 527 (2009)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 149, *aff'd on other grounds*, CLI-01-17, 54 NRC 3 (2001)
an individual may satisfy standing requirements by demonstrating that his or her residence or activities are within the geographical area that might be affected by an accidental release of fission products, and in proceedings involving nuclear power plants this area has been defined as being within a 50-mile radius of such a plant; LBP-09-4, 69 NRC 178 (2009)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 150, *aff'd on other grounds*, CLI-01-17, 54 NRC 3 (2001)
persons living within a 50-mile radius of a proposed new reactor face a realistic threat of harm if a release of radioactive material were to occur from the facility and thus are not required to make individual showings of injury, causation, and redressability; LBP-09-4, 69 NRC 183 (2009)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 159 (2001)
contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-09-3, 69 NRC 152 (2009)
- Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-16, 31 NRC 509 (1990)
contentions are inadmissible where petitioner makes minimal effort to support them; LBP-09-6, 69 NRC 415 n.234 (2009)
- Free Transcripts of Adjudicatory Proceedings — Nuclear Regulatory Commission*, B-200585, 1981 WL 23995, *3 (Comp. Gen. 1981)
a Commission action does not violate section 502 of the Energy and Water Development Appropriations Act simply because it incidentally eases the cost burden on intervenors by, for example, providing free hearing transcripts to all parties to Commission proceedings, even though the proposal would technically provide monetary assistance to intervenors; LBP-09-1, 69 NRC 44 n.136 (2009)
licensing board authority to sanction parties that violate NRC rules does not have the purpose of relieving intervenors of their adjudicatory expenses, but would merely have an incidental effect, as part of an overall effort to ensure that the licensing process moves along at an expeditious pace, which in no way singles out intervenors as a special class; LBP-09-1, 69 NRC 44 (2009)
- Friends of the Earth, Bluewater Network Division v. U.S. Department of Interior*, 478 F. Supp. 2d 11, 16 (D.D.C. 2007)
while standing to challenge uniform, systemwide regulations requires only that an association identify a single member with standing as to those counts and at least one unit, in order to show standing to challenge site-specific regulations at 18 individual units, an association has to identify a member affected by each site-specific action; LBP-09-1, 69 NRC 23 n.43 (2009)
- Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 160 (4th Cir. 2000) (en banc)
federal courts of appeal have failed to reach a consensus on the question whether a risk of future injury must exceed a numerical threshold; LBP-09-4, 69 NRC 184 (2009)
- Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc.*, 528 U.S. 167, 180-81 (2000)
basic elements of constitutional standing are set forth; LBP-09-4, 69 NRC 182 (2009)
- Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc.*, 528 U.S. 167, 182-84 (2000)
to establish injury-in-fact, petitioners do not have to show that pollutant discharges have actually harmed the environment; LBP-09-4, 69 NRC 185 n.44 (2009)
- Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc.*, 528 U.S. 167, 185 (2000)
plaintiff in federal court must demonstrate standing separately for each form of relief sought and for each separate claim; LBP-09-1, 69 NRC 19, 21-22 (2009)

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- Frothingham v. Mellon*, 262 U.S. 447, 486-87 (1923)
standing on the part of plaintiffs is found at a bare minimum as municipal taxpayers under case law in which the peculiar relation of the corporate taxpayer to the corporation distinguishes such a case from the general bar on taxpayer suits; LBP-09-1, 69 NRC 23 (2009)
- General Electric Co.*, 3 AEC 99 (1966)
the words “owned, controlled, or dominated” refer to relationships where the will of one party is subjugated to the will of another; LBP-09-4, 69 NRC 192 (2009)
- General Electric Co.*, 3 AEC 99, 101 (1966)
corporate relationships where an alien has the power to direct the actions of the licensee are prohibited; LBP-09-4, 69 NRC 193 (2009)
the prohibition on foreign ownership of a licensee is oriented toward safeguarding the national defense and security of the United States; LBP-09-4, 69 NRC 193 (2009)
- General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Unit 1), ALAB-881, 26 NRC 465, 473 (1987)
although the Commission has authority to make *de novo* findings of fact, it does not do so where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-09-7, 69 NRC 259 (2009)
to prevail on appeal, petitioners must show clear error that compels a different result; CLI-09-7, 69 NRC 264 (2009)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995)
although petitioner bears the burden of demonstrating standing, in ruling on standing a licensing board is to construe the petition in favor of the petitioner; LBP-09-1, 69 NRC 17 (2009); LBP-09-2, 69 NRC 93 (2009); LBP-09-3, 69 NRC 149-50 (2009); LBP-09-6, 69 NRC 382 (2009)
in determining whether an individual or organization should be granted party status as of right, NRC applies judicial standing concepts; LBP-09-6, 69 NRC 382 (2009)
the character or integrity of an applicant is a proper consideration in a licensing proceeding; LBP-09-6, 69 NRC 458 (2009)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115-17 (1995)
Commission precedents describing the requirements for establishing representational and organizational standing are longstanding; LBP-09-5, 69 NRC 311 n.6 (2009)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 118 (1995)
petitioners allegations of several serious safety problems that had persisted with respect to the reactor over a period of years are a legitimate attack on management quality and integrity; CLI-09-9, 69 NRC 355 n.129 (2009)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 120 (1995)
license renewal is an appropriate occasion for appraising the entire past performance of the licensee; CLI-09-9, 69 NRC 355 n.126 (2009)
to raise an admissible issue, allegations of management improprieties must be of more than historical interest; CLI-09-9, 69 NRC 355 (2009); LBP-09-6, 69 NRC 467 n.563 (2009)
- Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 120-21 (1995)
as long as petitioner alleges, with sufficient support, that applicant’s bad character or lack of integrity has direct and obvious relevance to the licensing action at issue in the proceeding, a character-based contention is admissible; LBP-09-6, 69 NRC 466, 467, 473 (2009)
- 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)
if petitioner neglects to provide the requisite support for its contentions, it is not within the board’s power to make assumptions of fact that favor the petitioner, nor may the board supply information that is lacking; LBP-09-3, 69 NRC 153 (2009)

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- petitioner is obliged to present factual information and/or expert opinion necessary to support its contention; LBP-09-3, 69 NRC 153 (2009)
- petitioner is obligated to provide the technical analyses and expert opinion or other information showing why its bases support its contention; LBP-09-4, 69 NRC 204 n.129 (2009)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25 (1993) circumstances of the high-level waste repository proceeding are quite different from cases in which the NRC considers the character and competence of a private enterprise, not under the government's control; CLI-09-14, 69 NRC 605 (2009)
- the character or integrity of an applicant is a proper consideration in a licensing proceeding; LBP-09-6, 69 NRC 458 (2009)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 30-31 (1993) lack of either technical competence or character qualifications on the part of licensee or applicant is sufficient grounds for the revocation of a license or the denial of a license application; LBP-09-6, 69 NRC 469 n.584 (2009)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 31 (1993) in making determinations about integrity or character, the Commission may consider evidence bearing upon the licensee's candor, truthfulness, willingness to abide by regulatory requirements, and acceptance of responsibility to protect public health and safety; LBP-09-6, 69 NRC 466 (2009)
- past performance of management or high-ranking officers, as reflected in deliberate violations of regulations or untruthful reports to the Commission, may indicate whether a licensee will comply with agency standards, and will candidly respond to NRC inquiries; LBP-09-6, 69 NRC 466 (2009)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 32 (1993) a materials license amendment proceeding is not an appropriate forum to throw open an opportunity to engage in a free-ranging inquiry into the character of the licensee; LBP-09-1, 69 NRC 49 (2009)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 36 (1993) license amendment proceedings are not a forum to address past violations or accidents that have no direct bearing on the proposed amendment; CLI-09-12, 69 NRC 560 (2009)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 36, 39-42 (1993)
- as long as petitioner alleges, with sufficient support, that applicant's bad character or lack of integrity has direct and obvious relevance to the licensing action at issue in the proceeding, a character-based contention is admissible; LBP-09-6, 69 NRC 466, 467, 473 (2009)
- Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 41 (1993) a genuine dispute exists despite the fact that character or integrity is not required by regulation to be addressed in the license application; LBP-09-6, 69 NRC 468 (2009)
- GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000) absent sufficient support, NRC has declined to assume that licensees will contravene its regulations; CLI-09-12, 69 NRC 569 (2009); LBP-09-6, 69 NRC 467 n.569 (2009)
- Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 48-50 (1994) NRC has acknowledged the analogous standing of the part-owner of a facility; LBP-09-6, 69 NRC 432 (2009)
- Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-183, 7 AEC 222 (1974) the rule of thumb generally applied in reactor licensing proceedings includes a presumption of standing for persons who reside or frequent the area within a 50-mile radius of the facility; LBP-09-4, 69 NRC 181 (2009)
- Hale v. Colorado River Municipal Water District*, 818 S.W.2d 537, 538-39 (Tex. 1991) farmer could sue for release of chlorides into river 100 miles upstream that destroyed the farmer's peanut crop; CLI-09-12, 69 NRC 546 n.43 (2009)
- Hamlin Testing Laboratories, Inc.*, 2 AEC 423, 428 (1964) license renewal is an appropriate occasion for appraising the entire past performance of the licensee; CLI-09-9, 69 NRC 355 n.126 (2009)
- Hanly v. Kleindienst*, 471 F.2d 823, 831 (2d Cir. 1972) notwithstanding the Staff's findings of minor impacts relative to impingement and entrainment, which are supported by the preponderance of the evidence, those impacts might be the straw that breaks the back of the environmental camel; LBP-09-7, 69 NRC 683-84 (2009)

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- Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 389-400 (1979)
an organization seeking representational standing on behalf of its members may meet the injury-in-fact requirement by demonstrating that at least one of its members, who has authorized the organization to represent his or her interest, will be injured by the possible outcome of the proceeding; LBP-09-4, 69 NRC 178 n.22 (2009)
- Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 395-97 (1979)
when an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization for intervention; LBP-09-6, 69 NRC 435 (2009)
- Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 396 (1979), *reconsideration denied*, ALAB-539, 9 NRC 422 (1979)
an organization must submit written authorization from a member whose interests it purports to represent in order to have a concrete indication that the member wishes to have the organization represent his interests there; CLI-09-9, 69 NRC 343-44 n.62 (2009)
it might be reasonably inferred that by joining an organization, the members are implicitly authorizing it to represent any personal interests which might be affected by the proceeding; LBP-09-6, 69 NRC 434 (2009)
there are certain organizations for which member authorization for organizational standing might be presumed; LBP-09-6, 69 NRC 434 (2009)
- Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-544, 9 NRC 630 (1979)
an organization must submit written authorization from a member whose interests it purports to represent in order to have a concrete indication that the member wishes to have the organization represent his interests there; CLI-09-9, 69 NRC 343 (2009)
- Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-799, 21 NRC 360, 373-74 (1985)
an investigation into applicant's character should also include a review of the applicant's good character; LBP-09-6, 69 NRC 468 n.575 (2009)
- Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), LBP-83-26, 17 NRC 945, 946-47 (1983)
the Commission's decision not to entertain a state's integrity and competence contentions in the high-level waste repository proceeding is consistent with its practice of extending comity to other governmental entities; CLI-09-14, 69 NRC 606 n.150 (2009)
- Hunt v. Washington State Apple Advertising Commission*, 432 U.S. 333, 342-45 (1977)
when an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization for intervention; LBP-09-6, 69 NRC 435 (2009)
- Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-00-8, 51 NRC 227, 243 (2000)
the Commission does not entertain on appeal arguments not raised before the licensing board or presiding officer; CLI-09-12, 69 NRC 546 (2009)
- Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 275 (1998), *rev'd on other grounds*, CLI-98-16, 48 NRC 119 (1998)
anyone who uses a substantial quantity of water personally or for livestock from a source that is reasonably contiguous to either the uranium injection or processing sites has suffered an injury in fact; CLI-09-9, 69 NRC 345 (2009)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 46 (2001)
the Commission should not be expected to sift unaided through earlier briefs or other documents filed before the board to piece together and discern a party's argument and the grounds for its claims; CLI-09-11, 69 NRC 534 (2009)

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- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 53 (2001)
in the context of an NRC adjudicatory proceeding, even if an environmental impact statement prepared by the Staff is found to be inadequate in certain respects, the board's findings, as well as the adjudicatory record, become, in effect, part of the final EIS; LBP-09-7, 69 NRC 632 (2009)
- Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001)
when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant with regard to issues such as site selection and facility design; LBP-09-7, 69 NRC 632 (2009)
- Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-1, 63 NRC 1, 2 (2006)
the Commission defers to licensing boards' findings unless clearly erroneous, i.e., not even plausible in light of the record viewed in its entirety; CLI-09-7, 69 NRC 259 (2009)
- International Paper Co. v. Ouellette*, 479 U.S. 481, 495 (1987)
boards lack authority to establish prospective sanctions for any failure by the Staff and/or the applicant to comply with the board's notice conditions; CLI-09-2, 69 NRC 63 (2009)
- International Uranium (USA) Corp.* (Request for Materials License Amendment), CLI-00-4, 51 NRC 88, 88-89 (2000)
standing is frequently given to competitors of an applicant or licensee who assert that their businesses would be injured if the pending request were granted; LBP-09-6, 69 NRC 431 (2009)
- International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 117 n.1 (1998)
proximity alone does not suffice for standing in materials licensing cases; CLI-09-12, 69 NRC 548 n.53 (2009)
- International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 118 (1998)
on appeal, the Commission defers to the board's determinations on the admissibility of contentions unless it finds an error of law or abuse of discretion; CLI-09-12, 69 NRC 544 (2009)
- International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 251 (2001)
intervention petitioner must show that a license amendment will cause a distinct new harm or threat apart from the activities already licensed; CLI-09-12, 69 NRC 544 (2009)
- International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 252 (2001)
in the case of an ongoing operation, a petitioner would have to show that the license amendment sought would cause a distinct new harm to himself to gain standing; CLI-09-12, 69 NRC 545 (2009)
- International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-02-10, 55 NRC 251, 259 (2002)
a party seeking to demonstrate irreparable injury must provide factual substantiation for that claim; CLI-09-6, 69 NRC 136 n.26 (2009)
- Iowa Independent Bankers v. Board of Governors of Federal Reserve*, 511 F.2d 1288, 1293-94 (C.A.D.C. 1975)
once a litigant has standing to request invalidation of a particular agency action, it may do so by identifying all grounds on which the agency may have failed to comply with its statutory mandate; LBP-09-1, 69 NRC 24 n.52 (2009)
- Kansas Gas and Electric Co.* (Wolf Creek Generating Station, Unit 1), ALAB-462, 7 NRC 320, 338 (1978)
proponents of motions seeking to reopen the record bear a heavy burden; CLI-09-2, 69 NRC 65-66 n.48 (2009)
- Kansas Gas and Electric Co.* (Wolf Creek Generating Station, Unit 1), CLI-77-1, 5 NRC 1, 8 (1977)
NRC's environmental analysis in connection with licensing nuclear facilities should extend to related offsite construction projects such as connecting roads and railroad spurs; LBP-09-6, 69 NRC 404 (2009)
offsite health and safety impacts caused by onsite activities can support the admissibility of a contention; LBP-09-6, 69 NRC 435 (2009)
- Kelley v. Selin*, 42 F.3d 1501, 1521 (6th Cir.), cert. denied, 515 U.S. 1159 (1995)
alternatives that are technologically unproven need not be considered in an environmental impact statement; LBP-09-7, 69 NRC 633, 695 n.39, 696 (2009)
- Kerr-McGee Chemical Corp.* (West Chicago Rare Earths Facility), CLI-82-2, 15 NRC 232, 239 n.3 (1982)
in cases involving no concern over import or export of nuclear materials, common defense and security considerations under section 40.32(d) are not implicated; LBP-09-1, 69 NRC 36 (2009)

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- Kerr-McGee Chemical Corp.* (West Chicago Rare Earths Facility), LBP-85-3, 21 NRC 244, 254-55 (1985)
preparation of either a supplemental or a revised environmental impact statement and a Staff position paper approving or disapproving applicant's regulatory proposal does not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.24 (2009)
- Kerr-McGee Chemical Corp.* (West Chicago Rare Earths Facility), LBP-85-3, 21 NRC 244, 257 (1985)
litigation expense, even substantial and unrecoupable cost, does not constitute irreparable injury; CLI-09-6, 69 NRC 135 (2009)
- Kleppe v. Sierra Club*, 427 U.S. 390, 404-06 (1976)
merely contemplating a certain action, even if accompanied by research or study, does not necessarily constitute a proposal for a major federal action requiring National Environmental Policy Act review; CLI-09-14, 69 NRC 593 n.77 (2009)
- Kleppe v. Sierra Club*, 427 U.S. 390, 410 (1976)
when several proposals for actions that will have cumulative or synergistic environmental impacts upon a region are pending concurrently before an agency, their environmental consequences must be considered together; LBP-09-4, 69 NRC 205 (2009)
- Kurtz v. Baker*, 829 F.2d 1133, 1144 (D.C. Cir. 1987)
when petitioner claims an increased risk of future harm, that harm must be substantially probable to constitute an injury-in-fact for the purposes of standing; LBP-09-4, 69 NRC 183 (2009)
- League of Wilderness Defenders—Blue Mountains Biodiversity Project v. U.S. Forest Service*, 549 F.3d 1211, 1218 (9th Cir. 2008)
the Council on Environmental Quality's interpretation that 40 C.F.R. 1508.7 permits consideration of all past impacts in the aggregate is not plainly erroneous or inconsistent with the language of the regulation, and CEQ is the agency charged with interpreting the National Environmental Policy Act and that adopted the regulation; LBP-09-4, 69 NRC 203 (2009)
- Lewis v. Casey*, 518 U.S. 343, 349 (1996)
the requirement to show actual injury derives ultimately from the doctrine of standing, a constitutional principle that prevents courts of law from undertaking tasks assigned to the political branches; LBP-09-1, 69 NRC 22 (2009)
- Lewis v. Casey*, 518 U.S. 343, 357 (1996)
if once a plaintiff demonstrates harm from one particular inadequacy in government administration, the court is authorized to remedy all inadequacies in that administration; LBP-09-1, 69 NRC 22 (2009)
plaintiff in federal court must demonstrate standing separately for each separate claim; LBP-09-1, 69 NRC 19 (2009)
- Lewis v. Casey*, 518 U.S. 343, 358 n.6 (1996)
if the right to complain of one administrative deficiency automatically conferred the right to complain of all administrative deficiencies, any citizen aggrieved in one respect could bring the whole structure of state administration before the courts for review; LBP-09-1, 69 NRC 22-23 (2009)
standing is not dispensed in gross; LBP-09-1, 69 NRC 20 (2009)
- Lewis v. Casey*, 518 U.S. 343, 360 n.7 (1996)
the inappropriateness of systemwide relief for illiterate inmates does not rest upon the application of standing rules, but rather upon the respondents' failure to prove that denials of access to illiterate prisoners pervaded the state's prison system; LBP-09-1, 69 NRC 22 n.39 (2009)
- 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 because the agency has not expressly adopted them, but they are entitled to considerable deference; LBP-09-7, 69 NRC 631 (2009)
- Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 739 (3d Cir. 1989)
agencies may decline to examine issues that the agency in good faith considers remote and speculative or inconsequentially small; LBP-09-7, 69 NRC 632, 719 (2009)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973)
NRC's environmental review need only account for those impacts that have some likelihood of occurring or are reasonably foreseeable; LBP-09-4, 69 NRC 208 (2009)
the "hard look" required by the National Environmental Policy Act is subject to a rule of reason in that consideration of environmental impacts need not address every impact that could possibly result,

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- but rather only those that are reasonably foreseeable or have some likelihood of occurring; LBP-09-7, 69 NRC 631, 719, 729, 732 (2009)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1999) the alternatives discussion in an environmental impact statement need not include every possible alternative, but rather every reasonable alternative; LBP-09-7, 69 NRC 633 (2009)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-83-61, 18 NRC 700, 702 (1983) the Commission's decision not to entertain a state's integrity and competence contentions in the high-level waste repository proceeding is consistent with its practice of extending comity to other governmental entities; CLI-09-14, 69 NRC 606 n.150 (2009)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-84-45, 20 NRC 1343, 1400 (1984), *aff'd in part, rev'd in part, and remanded*, ALAB-800, 21 NRC 386 (1985) the phrase "common defense and security" has been interpreted as referring to the absence of foreign control over the applicant; LBP-09-1, 69 NRC 30 n.74 (2009)
- Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-87-29, 26 NRC 302, 312 (1987) expenses of any kind do not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.25 (2009)
- Los Angeles v. Lyons*, 461 U.S. 95, 103, 102-06 (1983) even if injury sufficient to show an existing case or controversy is established, this does not confer standing with regard to injunctive relief; LBP-09-1, 69 NRC 23 n.43 (2009)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 84 (1998) where the Staff has prepared a draft or final environmental impact statement by the time the contentions come before a licensing board on the merits, such contentions are appropriately treated as challenges to the EIS; LBP-09-7, 69 NRC 634 (2009)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998) the National Environmental Policy Act requires federal agencies to take a hard look at the environmental impacts of a proposed action, as well as reasonable alternatives to that action; LBP-09-7, 69 NRC 631, 719 (2009)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 88 (1998) the National Environmental Policy Act does not require NRC to assess every impact or effect, but only the impact or effect on the environment; LBP-09-2, 69 NRC 112 n.99 (2009)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 88, 94 (1998) applicant need not provide burdensome analyses; LBP-09-2, 69 NRC 108 n.81 (2009)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 93-94 (1998) the Commission defers to licensing boards' findings unless clearly erroneous, i.e., not even plausible in light of the record viewed in its entirety; CLI-09-7, 69 NRC 259 (2009)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 103 (1998) agencies are given broad discretion in determining how thoroughly to analyze a particular subject; LBP-09-7, 69 NRC 631, 719 (2009)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 104 (1998) agencies must provide a detailed statement of reasonable alternatives to a proposed action; LBP-09-7, 69 NRC 633 (2009) when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant with regard to issues such as site selection and facility design; LBP-09-7, 69 NRC 632 (2009)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-91-41, 34 NRC 332, 343, 359 (1991) lack of either technical competence or character qualifications on the part of licensee or applicant is sufficient grounds for the revocation of a license or the denial of a license application; LBP-09-6, 69 NRC 469 n.584 (2009)
- Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-96-25, 44 NRC 331, 339 (1996) because the Staff, as a practical matter, relies heavily on the applicant's environmental report in preparing the environmental impact statement, should the applicant become a proponent of a particular challenged position set forth in the EIS, then the applicant also has the burden of proof on that matter; LBP-09-7, 69 NRC 635 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223 (2004) petitioner is confined to the contention as initially filed and may not rectify its deficiencies through its reply brief or on appeal; CLI-09-14, 69 NRC 588 (2009)

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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 rules require a high level of discipline and preparation by petitioners, who must examine the publicly available material and set forth their claims and the support for their claims at the outset; CLI-09-7, 69 NRC 272 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225, reconsideration denied, CLI-04-35, 60 NRC 619 (2004)
allowing new claims in a reply would unfairly deprive other participants of an opportunity to rebut the new claims; LBP-09-6, 69 NRC 424 n.283, 426 (2009)
NRC's expanding adjudicatory docket makes it critically important that parties comply with pleading requirements and that the board enforce those requirements; CLI-09-7, 69 NRC 272 (2009)
petitioners may not raise entirely new arguments in a reply brief unless the standards for late-filed contentions are met; CLI-09-7, 69 NRC 276 (2009)
there simply would be no end to NRC licensing proceedings if petitioners could disregard timeliness requirements and add new contentions at their convenience during the course of a proceeding based on information that could have formed the basis for a timely contention at the outset of the proceeding; CLI-09-7, 69 NRC 272 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 622-23 (2004)
petitioners may not skirt contention rules by initially filing unsupported contentions, and later recasting or modifying their contentions on appeal with new arguments never raised before the board; CLI-09-5, 69 NRC 123 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-35, 60 NRC 619, 623 (2004)
although petitioners may not use their reply pleadings to provide new threshold support for their contentions, they may use their reply to clarify and to develop information included in their initial petition; LBP-09-6, 69 NRC 434 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-21, 62 NRC 538, 539 (2005)
routine rulings on contention admissibility are usually not occasions for the Commission to exercise its authority to step into ongoing licensing board proceedings and undertake interlocutory review; CLI-09-3, 69 NRC 72 (2009); CLI-09-6, 69 NRC 133 n.16 (2009)
traditionally, the Commission has accepted board certifications or referrals; CLI-09-3, 69 NRC 72 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 723 (2005)
although the Commission has authority to make *de novo* findings of fact, it does not do so where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-09-7, 69 NRC 259 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 726 (2005)
NRC is not in the business of regulating the market strategies of licensees and leaves to licensees the ongoing business decisions that relate to costs and profit; LBP-09-2, 69 NRC 111 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-04-14, 60 NRC 40, 55 (2004)
petitioner must present the factual information and expert opinions necessary to support its contention adequately; LBP-09-4, 69 NRC 216 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-05-13, 61 NRC 385, 404 (2005), *aff'd*, CLI-06-22, 64 NRC 37 (2006), *petition for review denied sub nom., Nuclear Information and Resource Service v. NRC*, 509 F.3d 562 (D.C. Cir. 2007)
the board's ultimate NEPA judgments can be made on the basis of the entire adjudicatory record in addition to the Staff's final environmental impact statement; LBP-09-7, 69 NRC 632 (2009)
- Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-06-8, 63 NRC 241, 258-59 (2006)
NRC's environmental review need only account for those impacts that have some likelihood of occurring or are reasonably foreseeable; LBP-09-4, 69 NRC 208 (2009)
- Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1087 n.12 (1983)
a board has a duty not only to resolve contested issues, but to articulate in reasonable detail the basis for the course of action chosen; CLI-09-14, 69 NRC 587 (2009)
the Commission is entitled to review the record itself and amplify the board's findings; CLI-09-14, 69 NRC 587 (2009)

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- Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1093 (1983)
once a party has introduced sufficient evidence to establish a *prima facie* case, the burden of proof then shifts to the applicant who must provide sufficient rebuttal to satisfy the board that it should reject the contention as a basis for denial of the permit or license; CLI-09-7, 69 NRC 269 (2009)
- Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-812, 22 NRC 5, 48-51 (1985)
circumstances of the high-level waste repository proceeding are quite different from cases in which the NRC considers the character and competence of a private enterprise, not under the government's control; CLI-09-14, 69 NRC 605 (2009)
- Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1, 5 (1986)
the burden of satisfying the reopening requirements is a heavy one; CLI-09-7, 69 NRC 287 (2009)
- Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992)
basic elements of constitutional standing are set forth; LBP-09-4, 69 NRC 182, 183 (2009)
- Marsh v. Oregon Natural Resources Council*, 490 U.S. 360 (1989)
a contention that directly or indirectly challenges Table S-3 is inadmissible; LBP-09-4, 69 NRC 222 (2009)
the environmental impact statement for a combined license must include new and significant information relevant to the environmental impacts of the proposed facility; LBP-09-4, 69 NRC 220 (2009)
- Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989)
agencies must take a hard look at the environmental effects of their planned actions, and update the environmental impact statement to reflect new information that is relevant to the environmental consequences of the proposed action; LBP-09-4, 69 NRC 228 n.192 (2009)
- Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 376-77 (1989)
agencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined, and agencies retain substantial discretion as to the extent of such inquiry and the appropriate level of explanation; LBP-09-4, 69 NRC 203 (2009)
- Massachusetts v. Environmental Protection Agency*, 549 U.S. 497, 517-18 (2007)
all that is required in the case of a procedural injury is some possibility that the requested relief will prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant; CLI-09-9, 69 NRC 340 n.41 (2009)
- Massachusetts v. Mellon*, 262 U.S. 447, 486-87 (1923)
standing on the part of plaintiffs is found at a bare minimum as municipal taxpayers under case law in which the peculiar relation of the corporate taxpayer to the corporation distinguishes such a case from the general bar on taxpayer suits; LBP-09-1, 69 NRC 23 (2009)
- Medimmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 128 n.8 (2007)
it is appropriate to assess both the fitness of the issue for judicial decision and the hardship to the parties of withholding court consideration; LBP-09-1, 69 NRC 39 n.114 (2009)
- Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), ALAB-772, 19 NRC 1193, 1206-07 (1984)
lack of either technical competence or character qualifications on the part of licensee or applicant is sufficient grounds for the revocation of a license or the denial of a license application; LBP-09-6, 69 NRC 469 n.584 (2009)
- Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-84-17, 20 NRC 801, 804 (1984)
expenses of any kind do not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.25 (2009)
- Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-85-9, 21 NRC 1118, 1136-40, *aff'd*, *In re Three Mile Island Alert, Inc.*, 771 F.2d 720 (3d Cir. 1985), *cert. denied*, 475 U.S. 1082 (1986)
circumstances of the high-level waste repository proceeding are quite different from cases in which NRC considers the character and competence of a private enterprise, not under the government's control; CLI-09-14, 69 NRC 605 (2009)

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- Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 772 (1983)
the National Environmental Policy Act does not require NRC to assess every impact or effect, but only the impacts or effects on the environment; LBP-09-2, 69 NRC 112 n.99 (2009)
- Mississippi Power and Light Co.* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973)
at the admissibility stage, petitioner does not have to prove its contentions and boards do not adjudicate disputed facts; LBP-09-6, 69 NRC 401 (2009)
- National Archives & Records Administration v. Favish*, 541 U.S. 157, 174 (2004)
there is a longstanding presumption of regularity, under which adjudicatory bodies presume, absent strong and concrete evidence otherwise, that government agencies and their employees will do their jobs honestly and properly; CLI-09-14, 69 NRC 606 (2009)
- National Association of Home Builders v. Defenders of Wildlife*, 127 S. Ct. 2518, 2535 (2007)
an agency may be excused from complying with the National Environmental Policy Act where it has no discretion to prevent, or to refuse to take, the action involved; LBP-09-6, 69 NRC 405 (2009)
- Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 834 (D.C. Cir. 1982)
National Environmental Policy Act analyses are subject to a rule of reason; LBP-09-4, 69 NRC 208 (2009)
- Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 837 (D.C. Cir. 1972)
alternative energy sources that will be dependent on future environmental safeguards and technological developments need not be considered in an environmental impact statement; LBP-09-7, 69 NRC 633 (2009)
- Natural Resources Defense Council, Inc. v. NRC*, 647 F.2d 1345, 1346 (D.C. Cir. 1981)
this case involves the issue of whether and to what extent effective control of nuclear exports requires the NRC to consider projected health and safety impacts associated with an exported reactor in the recipient foreign country, not whether foreign ownership itself may be relevant to common defense and security considerations in cases not involving exports per se; LBP-09-1, 69 NRC 30 n.74 (2009)
- Natural Resources Defense Council, Inc. v. NRC*, 647 F.2d 1345, 1349 (D.C. Cir. 1981)
in export license proceedings, there appear to be special considerations, including interaction with the Executive Branch and other agencies and time limits on decisions, that may distinguish them from other NRC adjudicatory proceedings; LBP-09-1, 69 NRC 39-40 (2009)
- Natural Resources Defense Council, Inc. v. NRC*, 647 F.2d 1345, 1363 (D.C. Cir. 1981)
in the absence of unusual circumstances, any proposed export meeting the nonproliferation safeguards criteria set forth in subsection 127a and subsection 128a of the Atomic Energy Act, would also satisfy the common defense and security standard; LBP-09-1, 69 NRC 30 n.74 (2009)
in the absence of unusual circumstances, the Commission need not look beyond the nonproliferation safeguards in determining whether the common defense and security standard is met; LBP-09-1, 69 NRC 30 n.74 (2009)
- Natural Resources Defense Council, Inc. v. U.S. Environmental Protection Agency*, 440 F.3d 476, 481 (D.C. Cir. 2006) *NRDC I*
parties challenging an agency regulation fail to demonstrate standing if the risk of injury is miniscule; LBP-09-4, 69 NRC 183 (2009)
- Natural Resources Defense Council, Inc. v. U.S. Environmental Protection Agency*, 464 F.3d 1, 8 (D.C. Cir. 2006)
a fatality rate of 1 in 4.2 billion per person per year is “infinitesimal,” a 1 in 21 million chance of developing skin cancer is “similarly small,” but a 1 in 200,000 lifetime risk of developing skin cancer is sufficient to constitute a substantially probable injury-in-fact; LBP-09-4, 69 NRC 183 (2009)
- New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87, 98 (1st Cir. 1978)
NRC can accept Environmental Protection Agency adjudicatory findings concerning thermal-discharge aquatic impacts as conclusive; LBP-09-7, 69 NRC 634 (2009)
- Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 354 (1975)
a board is free to decide the admissibility of a contention on a theory different from those argued by the litigants, but only if it explains the specific basis of its ruling and gives litigants a chance to

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- present arguments and, where appropriate, evidence regarding the board's new theory; CLI-09-3, 69 NRC 73 n.24 (2009)
- Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), CLI-00-25, 52 NRC 355, 357 (2000)
- once there has been an appeal or petition to review a board order ruling on intervention petitions, jurisdiction passes to the Commission, including jurisdiction to consider any motion to reopen; CLI-09-5, 69 NRC 120 (2009)
- Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station), LBP-01-10, 53 NRC 273, 287 (2001)
- NRC does not presume that a licensee will violate its regulations; CLI-09-12, 69 NRC 569 (2009)
- Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 48, 49 (1978)
- inherent in the National Environmental Policy Act and its implementing regulations is a rule of reason, which ensures that agencies determine whether and to what extent to prepare an environmental impact statement based on the usefulness of any potential new information to the decisionmaking process; LBP-09-4, 69 NRC 204 n.126 (2009)
- Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 55-56 (1978)
- a board is free to decide the admissibility of a contention on a theory different from those argued by the litigants, but only if it explains the specific basis of its ruling and gives litigants a chance to present arguments and, where appropriate, evidence regarding the board's new theory; CLI-09-3, 69 NRC 73 n.24 (2009)
- Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), LBP-08-26, 68 NRC 905, 919 (2008)
- it is proper for a reply to respond to the legal, logical, and factual arguments presented in answers, as long as new issues are not raised; LBP-09-1, 69 NRC 30 n.73 (2009)
- Nuclear Energy Institute, Inc. v. Environmental Protection Agency*, 373 F.3d 1251 (D.C. Cir. 2004)
- in deciding ripeness questions, it is appropriate to assess both the fitness of the issue for judicial decision and the hardship to the parties of withholding court consideration; LBP-09-1, 69 NRC 38-39 n.114 (2009)
- Nuclear Energy Institute, Inc. v. Environmental Protection Agency*, 373 F.3d 1251, 1279 (D.C. Cir. 2004)
- delaying the opening of the Yucca Mountain repository would inflict concrete harm on members of an organization who expend substantial sums to operate their own storage facilities; LBP-09-6, 69 NRC 432 (2009)
- petitioner's use of litigation to speed the licensing of the Yucca Mountain repository is germane to its purpose and does not require the actual participation of any of its members individually; LBP-09-6, 69 NRC 432 (2009)
- the test to demonstrate prudential standing is not meant to be especially demanding; LBP-09-6, 69 NRC 432 (2009)
- Nuclear Energy Institute, Inc. v. Environmental Protection Agency*, 373 F.3d 1251, 1279-80 (D.C. Cir. 2004)
- under the test for prudential standing, a party's attempt to establish standing will fail only if the petitioner's interests are so marginally related to or inconsistent with the purposes implicit in the statute that it cannot reasonably be assumed that Congress intended to permit the suit; LBP-09-6, 69 NRC 432 (2009)
- Nuclear Energy Institute, Inc. v. Environmental Protection Agency*, 373 F.3d 1251, 1280 (D.C. Cir. 2004)
- while Congress did intend for section 801(a) of the Energy Policy Act to protect the public, Congress also intended that section to facilitate construction of a permanent nuclear waste repository; LBP-09-6, 69 NRC 432 (2009)
- Nuclear Energy Institute, Inc. v. Environmental Protection Agency*, 373 F.3d 1251, 1295 (D.C. Cir. 2004)
- the Nuclear Waste Policy Act does not require that each barrier type of the nuclear waste repository engineered barrier system provide a quantified amount of protection or, indeed, independent protection; CLI-09-14, 69 NRC 609 (2009)
- Nuclear Energy Institute, Inc. v. Environmental Protection Agency*, 373 F.3d 1251, 1302 (D.C. Cir. 2004)
- any challenge to the environmental impact statement's support for the Yucca Mountain site is moot, and to the extent NRC might rely on the EIS, challenges were unripe because NRC had not reached

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- a decision regarding adopting or relying upon the EIS in a way that could have yet harmed the parties; LBP-09-6, 69 NRC 396 (2009)
- Nuclear Energy Institute, Inc. v. Environmental Protection Agency*, 373 F.3d 1251, 1312-13 (D.C. Cir. 2004)
it is appropriate to assess both the fitness of the issue for judicial decision and the hardship to the parties of withholding court consideration; LBP-09-1, 69 NRC 38-39 n.114 (2009)
- Nuclear Energy Institute, Inc. v. Environmental Protection Agency*, 373 F.3d 1251, 1313-14 (D.C. Cir. 2004)
NEPA contention admissibility requirements should be applied in the high-level waste proceeding consistent with certain developments subsequent to this decision, and boards should treat as a cognizable new consideration an attack on the Yucca Mountain environmental impact statements based on significant and substantial information that, if true, would render the EISs inadequate; LBP-09-6, 69 NRC 392 (2009)
- Nuclear Engineering Co.* (Sheffield, Illinois, Low-Level Radioactive Waste Disposal Site), ALAB-473, 7 NRC 737, 743 (1978)
intervention is allowable to those who wish to support a proposal that will affect their interests if the proceeding has one outcome rather than another; LBP-09-6, 69 NRC 432 (2009)
- Nuclear Fuel Services, Inc.* (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004)
in a materials licensing case, in addition to showing proximity, petitioner must also satisfy the injury-in-fact component to show standing; LBP-09-4, 69 NRC 178 n.20 (2009)
- Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006)
a reply cannot expand the scope of the arguments set forth in the original hearing request; CLI-09-12, 69 NRC 568 (2009)
allowing new claims in a reply would unfairly deprive other participants of an opportunity to rebut the new claims; LBP-09-6, 69 NRC 424 n.283, 426 (2009)
it is proper for a reply to respond to the legal, logical, and factual arguments presented in answers, as long as new issues are not raised; LBP-09-1, 69 NRC 33 n.88 (2009)
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); CLI-09-7, 69 NRC 262 (2009); CLI-09-12, 69 NRC 568 (2009)
the “nontimely” filing standards in section 2.309(c) are generally applicable to new and amended contentions; LBP-09-3, 69 NRC 158-59 n.12 (2009)
- Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-07-9, 65 NRC 139, 141-42 (2007)
the National Environmental Policy Act is not an appropriate vehicle for exploring questions about the potential for a terrorist attack upon a proposed nuclear facility; LBP-09-2, 69 NRC 103 (2009)
- Nulankeyutmonen Nkihtagmikon v. Impson*, 530 F.3d 18 (1st Cir. 2007)
where a party’s procedural right has been violated, that party has standing to contest the procedural violation even where the underlying interest that the procedural right seeks to protect does not face an “immediate” threat; CLI-09-9, 69 NRC 339 n.35 (2009)
- Nulankeyutmonen Nkihtagmikon v. Impson*, 530 F.3d 18, 27 (1st Cir. 2007)
a person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy; CLI-09-9, 69 NRC 339 n.35 (2009)
- Nulankeyutmonen Nkihtagmikon v. Impson*, 530 F.3d 18, 28 (1st Cir. 2007)
all that is required in the case of a procedural injury is some possibility that the requested relief will prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant; CLI-09-9, 69 NRC 340 n.41 (2009)
- Ohio Edison Co.* (Perry Nuclear Power Plant, Unit 1), CLI-91-15, 34 NRC 269, 271 (1991), *reconsideration denied*, CLI-92-6, 35 NRC 86 (1992)
even in the absence of a petition for review, the Commission retains its supervisory power over adjudications to step in at any stage of a proceeding and decide a matter itself; CLI-09-3, 69 NRC 72 n.16 (2009)
- Ohio Edison Co.* (Perry Nuclear Power Plant, Unit 1), LBP-91-38, 34 NRC 229, 244-45 (1991)
economic interests of an organization representing nuclear utility members confer standing upon the organization; LBP-09-6, 69 NRC 433 (2009)

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- Ohio Edison Co.* (Perry Nuclear Power Plant, Unit 1), LBP-91-38, 34 NRC 229, 248-49, 250-51 (1991)
discretionary intervention is allowed because petitioner's interests are within the zone of interests related to the proceeding and its extensive participation in similar proceedings in the past would provide valuable insight in developing a sound record; LBP-09-6, 69 NRC 437 (2009)
- Pa'ina Hawaii, LLC*, CLI-06-18, 64 NRC 1, 5 (2006)
extra expense, work, and procedural delays are normal accoutrements of any hearing process involving the National Environmental Policy Act, and license applicants at the NRC assume the risk of imposition of these additional burdens; CLI-09-6, 69 NRC 136 n.29 (2009)
- Pa'ina Hawaii, LLC*, CLI-08-3, 67 NRC 151, 168 n.73 (2008)
a new contention will necessarily fail if it attacks the quality of the Staff's review rather than identifying a deficiency in the application; CLI-09-5, 69 NRC 123 (2009)
- Pa'ina Hawaii, LLC*, LBP-06-12, 63 NRC 403, 407 (2006)
the burden of setting forth a clear and coherent argument is on the petitioner; CLI-09-7, 69 NRC 277 n.230 (2009)
- Pa'ina Hawaii, LLC*, LBP-06-12, 63 NRC 403, 413 (2006)
a contention that provides a specific statement of the legal or factual issue sought to be raised by alleging, in relevant part, that the applicant's environmental report should have examined the environmental consequences of long-term onsite storage of low-level radioactive waste is admissible; LBP-09-4, 69 NRC 225 (2009)
- Pa'ina Hawaii, LLC*, LBP-06-12, 63 NRC 403, 414 (2006)
a contention of omission need only identify the regulatively required missing information and provide enough facts to show that the application is incomplete; LBP-09-3, 69 NRC 161 (2009)
challenge to the legal sufficiency of the environmental report included in the combined license application is within the scope of the proceeding; LBP-09-4, 69 NRC 225 (2009)
if omitted information is required by law, a contention alleging the omission, if supported, necessarily presents a genuine dispute with applicant on a material issue and raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance; LBP-09-4, 69 NRC 190, 216 (2009)
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; LBP-09-4, 69 NRC 190 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-756, 18 NRC 1340, 1344 (1983)
proponents of motions seeking to reopen the record bear a heavy burden; CLI-09-2, 69 NRC 65-66 n.48 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-873, 26 NRC 154 (1987)
petitioners will have an opportunity to appeal a board's contention admissibility rulings at the end of the case; CLI-09-9, 69 NRC 365 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 336-38 (2002)
to establish standing, economic interests must be linked to potential radiological or environmental risks; LBP-09-6, 69 NRC 431 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-03-2, 57 NRC 19, 26-27 (2003)
economic interests of an organization representing nuclear utility members confer standing upon the organization; LBP-09-6, 69 NRC 433 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-93-1, 37 NRC 5, 29-30 (1993)
contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-09-3, 69 NRC 152 (2009)

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- Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 237 (2002)
although a petition for review does not challenge anything the boards actually decided, the Commission addresses the merits of the request as an exercise of its ultimate supervisory control over our proceedings; CLI-09-10, 69 NRC 527 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1, 5-8 (2008)
opponents' arguments concerning other factors of the late-filing test did not outweigh petitioner's strong showing of good cause; CLI-09-12, 69 NRC 549 n.62 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1, 6 (2008)
a new contention is usually considered timely if filed within 30 days of publication of the draft environmental impact statement; CLI-09-9, 69 NRC 351 n.105 (2009)
NRC pleading standards do not allow for mere notice pleading, or the filing of general, vague, or unsupported claims to be elaborated on at some later time; CLI-09-5, 69 NRC 120 n.21 (2009)
the most important of the late-filing factors is good cause for the failure to file on time; CLI-09-5, 69 NRC 125 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-15, 56 NRC 42, 49 (2002)
expenses of any kind do not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.25 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 426 (2002)
an organization that wishes to intervene in a proceeding may do so either in its own right by demonstrating harm to its organizational interests, or in a representational capacity by demonstrating harm to its members; LBP-09-2, 69 NRC 94 n.19 (2009)
- Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 439-41 (2002), *petition for review denied*, CLI-03-12, 58 NRC 185, 191 (2003)
the requirement of materiality often dictates that any contention alleging deficiencies or errors in an application also indicate some significant link between the claimed deficiency and either the health and safety of the public or the environment; LBP-09-3, 69 NRC 154 (2009)
- Pennsylvania Power & Light Co.* (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-641, 13 NRC 550, 552-53 (1981)
expenses of any kind do not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.25 (2009)
- Pennsylvania Power & Light Co.* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-79-6, 9 NRC 291, 295-96 (1979)
although boards are not required to narrow contentions to make them acceptable, they may do so; LBP-09-4, 69 NRC 222 (2009)
- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-823, 22 NRC 773 (1985)
once there has been an appeal or petition to review a board order ruling on intervention petitions, jurisdiction passes to the Commission, including jurisdiction to consider any motion to reopen; CLI-09-5, 69 NRC 120 (2009)
- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1434 (1982)
an alleged injury to health and safety, shared equally by many, can form the basis for standing; LBP-09-4, 69 NRC 180 (2009)
- Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1467-68 (1982)
Staff is able to adopt the underlying scientific data and inferences from the other agency's analysis without independent review, as long as it exercises independent judgment with respect to conclusions about the environmental impacts of the current proposed agency action; LBP-09-7, 69 NRC 634 (2009)
- Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20 (1974)
petitioner may not challenge applicable statutory requirements as part of an administrative adjudication; CLI-09-14, 69 NRC 605 (2009)

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- Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20, *aff'd in part on other grounds*, CLI-74-32, 8 AEC 217 (1974)
adjudication is not the proper forum for challenging applicable statutory requirements or the basic structure of the agency's regulatory process; LBP-09-3, 69 NRC 152 (2009)
- Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 & n.33, *aff'd in part on other grounds*, CLI-74-32, 8 AEC 217 (1974)
contentions that attack applicable statutory requirements, challenges the basic structure of the NRC's regulatory process, or merely expresses generalized policy grievances are not appropriate for a board hearing; LBP-09-6, 69 NRC 390 (2009)
contentions that simply state petitioner's views about what regulatory policy should be do not present a litigable issue; LBP-09-3, 69 NRC 153 (2009)
- Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 21 (1974)
the contention requirements were never intended to be turned into a fortress to deny intervention; LBP-09-6, 69 NRC 453 (2009)
- Port Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 295 (2000)
NRC pleading standards do not allow for mere notice pleading, or the filing of general, vague, or unsupported claims to be elaborated on at some later time; CLI-09-5, 69 NRC 120 n.21 (2009)
- Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-14 (1976)
although Article III of the Constitution does not constrain the NRC hearing process, and NRC hearings therefore are not governed by judicially created standing doctrine, the Commission nonetheless has generally looked to judicial concepts of standing where appropriate to determine those interests affected within the meaning of section 189a of the Atomic Energy Act; LBP-09-1, 69 NRC 25 n.54 (2009)
in determining whether a petitioner has alleged an interest that may be affected by the proceeding within the meaning of section 189a of the Atomic Energy Act and then-existing section 2.714(a) of NRC's Rules of Practice, contemporaneous judicial concepts of standing should be used, including those regarding the zone-of-interests test; LBP-09-1, 69 NRC 17 (2009)
- Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 614 (1976)
the source of the practice in NRC proceedings of referring to judicial standing concepts is a 1976 Commission decision in which it affirmed the Appeal Board's determination that petitioners in the case did not meet the judicial standing test; LBP-09-1, 69 NRC 17 (2009)
- Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289 n.6 (1979)
any contention that falls outside the specified scope of the proceeding must be rejected; LBP-09-3, 69 NRC 153 (2009)
- Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974)
a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-09-2, 69 NRC 97 n.37 (2009); LBP-09-3, 69 NRC 152 (2009); LBP-09-8, 69 NRC 739 n.13 (2009)
- PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 104 (2007)
on appeal, the Commission defers to the board's determinations on the admissibility of contentions unless it finds an error of law or abuse of discretion; CLI-09-8, 69 NRC 324 (2009); CLI-09-9, 69 NRC 336 (2009); CLI-09-12, 69 NRC 543 (2009)
the board's judgment at the pleading stage is accorded substantial deference; CLI-09-5, 69 NRC 119 (2009)
- PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 106 n.26 (2007)
petitioners may not raise entirely new arguments in a reply brief unless the standards for late-filed contentions are met; CLI-09-7, 69 NRC 276 (2009)

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- PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 20 n.11, *appeal denied*, CLI-07-25, 66 NRC 101 (2007)
relative to individuals who provided affidavits in support of an organization's representational standing, the board used Google Earth to confirm the distance from the proposed reactor of the individual purportedly residing nearest to the facility; LBP-09-3, 69 NRC 150 n.3 (2009)
- PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 23 (2007)
a licensing board is not free to supply missing information or draw factual inferences on the petitioner's behalf; CLI-09-7, 69 NRC 260 n.132 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-7, 47 NRC 307, 310, 311-12 (1998)
interlocutory review of a licensing board decision was authorized to avoid duplicative or unnecessary litigating steps and thereby fundamentally altering the nature of the proceeding; CLI-09-6, 69 NRC 136-137 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999)
Commission precedents describing the requirements for establishing representational and organizational standing are longstanding; LBP-09-5, 69 NRC 311 n.6 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 324 (1999)
on appeal, the board's judgment on determinations of standing is given substantial deference absent a clear misapplication of facts or law; CLI-09-12, 69 NRC 543 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999)
failure to comply with any of the contention pleading requirements is grounds for dismissing a contention; LBP-09-3, 69 NRC 152 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-2, 51 NRC 77, 79-80 (2000)
the rejection or admission of a contention, where the petitioner has been admitted as a party and has other contentions pending, neither constitutes serious and irreparable impact, nor affects the basic structure of the proceeding in a pervasive and unusual manner; CLI-09-9, 69 NRC 365 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-2, 51 NRC 77, 80 (2000)
incorrect interlocutory rulings may be reviewed, if necessary, on appeals from partial initial decisions or other final appealable orders; CLI-09-6, 69 NRC 137-38 n.38 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-1, 53 NRC 1, 5 (2001)
incorrect interlocutory rulings may be reviewed, if necessary, on appeals from partial initial decisions or other final appealable orders; CLI-09-6, 69 NRC 137-38 n.38 (2009)
petitions for interlocutory review are granted only under extraordinary circumstances; CLI-09-6, 69 NRC 133 (2009)
the possibility that an interlocutory ruling may be wrong does not in itself justify interlocutory review; CLI-09-6, 69 NRC 137 n.38 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-1, 53 NRC 1, 7 (2001)
licensing boards have broad discretion to sanction willful, prejudicial, and bad-faith behavior; LBP-09-1, 69 NRC 43, 44-45 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 255 (2001)
events having a less than a one in one million probability of occurring are not credible events; LBP-09-4, 69 NRC 208 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 260 (2001)
the Standard Review Plan for reactors deems a threshold probability of one in a million to be acceptable where, when combined with reasonable qualitative arguments, the realistic probability can be shown to be lower; LBP-09-2, 69 NRC 104 n.72 (2009)

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- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-11, 55 NRC 260, 263 (2002)
expenses of any kind do not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.25 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-26 (2003)
although the Commission has authority to make *de novo* findings of fact, it does not do so where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-09-7, 69 NRC 259 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 26 (2003)
the standard of clear error for overturning a board's factual finding is quite high; CLI-09-7, 69 NRC 259 (2009)
to prevail on appeal, petitioners must show clear error; CLI-09-7, 69 NRC 264 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004)
petitioner does not have to prove its contention at the admissibility stage; LBP-09-4, 69 NRC 195 n.89 (2009); LBP-09-6, 69 NRC 390, 401 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139-40 (2004)
the Commission does not entertain on appeal arguments not raised before the board; CLI-09-12, 69 NRC 546 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 145 (2004)
quibbling over the details of an economic analysis amounts to standing the National Environmental Policy Act on its head by asking that the license be rejected not due to environmental costs, but because the economic benefits are not as great as estimated; LBP-09-2, 69 NRC 108 n.81 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-05-19, 62 NRC 403, 411 (2005)
a licensing board's chief function is to carefully review all of the evidence, including testimony and exhibits, and to resolve any factual disputes; CLI-09-7, 69 NRC 259 (2009)
unless there is strong reason to believe that in a particular case a board has overlooked or misunderstood important evidence, the Commission will defer to its findings of fact; CLI-09-7, 69 NRC 259 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 24 (2006)
after final agency decision, the Commission retains jurisdiction to consider a reopening motion, as opposed to a section 2.206 action, because the license has not yet issued; CLI-09-5, 69 NRC 121 n.27 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 179 (1998)
contentions that advocate more or less stringent requirements than the NRC rules impose, otherwise seek to litigate a generic determination that the Commission has established by rulemaking, or raise a matter that is or is about to become the subject of rulemaking are barred; LBP-09-6, 69 NRC 390 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998)
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-09-4, 69 NRC 204 n.129 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181 (1998)
expert opinion must not be limited to bald conclusory statements such as that the application under consideration is "deficient," "inadequate," or "wrong"; LBP-09-6, 69 NRC 411 (2009)

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- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-37, 54 NRC 476, 483 (2001), *review declined*, CLI-02-3, 55 NRC 155, 156 n.9 (2002)
decisions on nontimely filings require a balancing of the eight factors set forth in 10 C.F.R. 2.309(c)(1), the first of which, good cause for failure to file on time, is the most important; CLI-09-7, 69 NRC 262 (2009)
- Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-03-30, 58 NRC 454, 479 (2003)
reasonable alternatives discussed in an environmental impact statement do not include alternatives that are impractical, that present unique problems, or that cause extraordinary costs; LBP-09-7, 69 NRC 633 (2009)
- Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1 (2008)
an Atomic Safety and Licensing Board should hold any contentions on the reactor design filed in a combined license adjudication in abeyance, pending the results of the rulemaking proceeding on the design certification; CLI-09-4, 69 NRC 85 (2009)
- Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1, 3-4 & nn.5, 8 (2008)
argument that combined license hearing notice should be delayed until completion of the certified design rulemaking fails to recognize the Commission direction that a contention raised in COL hearing challenging information in a design certification rulemaking, if otherwise admissible, should be referred to the Staff for consideration in the rulemaking, and held in abeyance by licensing board pending outcome of rulemaking; LBP-09-3, 69 NRC 157 n.9 (2009)
- Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1, 4 (2008)
a properly raised a contention challenging information in the design certification rulemaking should be referred to the Staff for consideration in the design certification rulemaking, and held in abeyance if it is otherwise admissible; LBP-09-2, 69 NRC 97 n.37 (2009)
an attack upon the design certification process that is being conducted by rulemaking is outside the scope of a combined license proceeding; LBP-09-2, 69 NRC 97 n.35, 98 n.37 (2009)
if applicant later decides not to reference a certified design, and instead proceeds with a site-specific design, any admissible issues would have to be addressed in the licensing adjudication; LBP-09-2, 69 NRC 100 (2009)
the revision process for reactor design is contemplated by NRC regulations and is currently being carried out through the design certification rulemaking; LBP-09-2, 69 NRC 98 (2009)
- Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-09-8, 69 NRC 317, 324 (2009)
the Commission generally defers to board rulings on contention admissibility in the absence of clear error or abuse of discretion; CLI-09-14, 69 NRC 584 (2009)
- Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plants, Units 2 and 3), LBP-08-21, 68 NRC 554, 576 (2008)
the National Environmental Policy Act requires applicant to present a cost-benefit analysis only where applicant's alternatives analysis indicates that there is an environmentally preferable alternative; LBP-09-2, 69 NRC 112 n.102 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33, 41 (1977) *aff'd*, CLI-78-1, 7 NRC 1 (1978)
a board has a duty not only to resolve contested issues, but to articulate in reasonable detail the basis for the course of action chosen; CLI-09-14, 69 NRC 587 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-471, 7 NRC 477, 489 n.8 (1978), *rev'd on other grounds*, CLI-97-15, 46 NRC 294 (1997)
because the Staff, as a practical matter, relies heavily upon the applicant's environmental report in preparing the environmental impact statement, should the applicant become a proponent of a particular challenged position set forth in the EIS, the applicant also has the burden of proof on that matter; LBP-09-7, 69 NRC 635 (2009)

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- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-737, 18 NRC 168, 176 (1983)
expenses of any kind do not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.25 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-862, 25 NRC 144, 150 & n.18 (1987)
the Commission's decision not to entertain a state's integrity and competence contentions in the high-level waste repository proceeding is consistent with its practice of extending comity to other governmental entities; CLI-09-14, 69 NRC 606 n.150 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 16, *aff'd*, CLI-88-10, 28 NRC 573, 597 (1988), *reconsideration denied*, CLI-89-3, 29 NRC 234 (1989)
waiver of a rule or regulation can be granted only in unusual and compelling circumstances; LBP-09-6, 69 NRC 389 n.80 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-77-25, 6 NRC 535, 537 (1977)
the Commission's decision not to entertain a state's integrity and competence contentions in the high-level waste repository proceeding is consistent with its practice of extending comity to other governmental entities; CLI-09-14, 69 NRC 606 n.150 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-88-10, 28 NRC 573, 596, 597 (1988)
rule waivers are not granted where the circumstances on which the waiver's proponent relies are common to a large class of applicants or facilities; CLI-09-3, 69 NRC 75 n.38 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-7, 29 NRC 395, 398 n.8 (1989)
motions for reconsideration that have not asserted changed circumstances that could not previously have been brought to the Commission are denied; CLI-09-8, 69 NRC 329 n.48 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-90-3, 31 NRC 219, 229 (1990)
the Commission has inherent supervisory authority over licensing proceedings; CLI-09-7, 69 NRC 284 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-90-10, 32 NRC 218, 221 (1990)
proponents of a reopening motion bear the burden of meeting all of the requirements of 10 C.F.R. 2.326; CLI-09-7, 69 NRC 287 (2009)
- Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-106, 16 NRC 1649, 1656 (1982)
contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-09-3, 69 NRC 152 (2009)
- Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1148-49 (1977)
discretionary intervention is granted to an intervenor who raised unique contentions and provided expert support; LBP-09-6, 69 NRC 438 n.386 (2009)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989)
the National Environmental Policy Act does not mandate particular results, but simply prescribes the necessary process; LBP-09-6, 69 NRC 401 n.151 (2009)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989)
once the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by the National Environmental Policy Act from deciding that other values outweigh the environmental costs; LBP-09-7, 69 NRC 697 n.42 (2009)
- Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351-52 (1989)
the National Environmental Policy Act requires that an environmental impact statement disclose mitigation measures for adverse environmental consequences; LBP-09-4, 69 NRC 227-28 (2009)

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- Rosen v. Tennessee Commissioner of Finance and Administration*, 288 F.3d 918 (6th Cir. 2002)
a class of plaintiffs challenging one provision of a program would not have standing to challenge a different provision unless they could show that one of the named plaintiffs would be adversely affected by that provision; CLI-09-9, 69 NRC 341 (2009)
plaintiff in federal court must demonstrate standing separately for each separate claim; LBP-09-1, 69 NRC 19 (2009)
- Rosen v. Tennessee Commissioner of Finance and Administration*, 288 F.3d 918, 927-31 (6th Cir. 2002)
standing is a claim-by-claim issue; LBP-09-1, 69 NRC 19 (2009)
- Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-94-2, 39 NRC 91, 93-94 (1994)
if litigants were permitted to successfully invoke interlocutory review based merely on an assertion that the licensing board erred in admitting (or excluding) a contention, the floodgates would be opened to a potential deluge of interlocutory appeals from any number of participants who lose admissibility rulings; CLI-09-6, 69 NRC 137 (2009)
the mere expansion of issues rarely, if ever, has been found to affect the basic structure of a proceeding in a pervasive or unusual manner so as to warrant interlocutory review; CLI-09-6, 69 NRC 133 n.16 (2009)
- Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-91-17, 33 NRC 379, 391 (1991)
even minor radiological exposures resulting from a proposed license activity can be enough to create the requisite injury-in-fact for standing to intervene; LBP-09-4, 69 NRC 181 (2009)
- Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined*, CLI-94-2, 39 NRC 91 (1994)
any contention that fails to directly controvert the application or that mistakenly asserts that the application does not address a relevant issue can be dismissed; LBP-09-3, 69 NRC 154 (2009)
- Safety Light Corp.* (Bloomsburg Site Decontamination), CLI-92-9, 35 NRC 156, 158 (1992)
petitions for interlocutory review are granted only under extraordinary circumstances; CLI-09-6, 69 NRC 133 (2009)
- Safety Light Corp.* (Bloomsburg Site Decontamination and License Renewal Denials), CLI-92-13, 36 NRC 79, 85 (1992)
even in the absence of a petition for review, the Commission retains its supervisory power over adjudications to step in at any stage of a proceeding and decide a matter itself; CLI-09-3, 69 NRC 72 n.16 (2009)
- San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006), *cert. denied*, 549 U.S. 1166 (2007)
NRC's position that passive measures already in place are appropriate for protecting nuclear facilities from an aerial attack is found to be unreasonable and NRC is required to investigate aviation threats; LBP-09-2, 69 NRC 102 (2009)
- Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 14 (2001)
on appeal, the board's judgment on determinations of standing is given substantial deference absent a clear misapplication of facts or law; CLI-09-12, 69 NRC 543 (2009)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-9, 40 NRC 1, 6 (1994)
expenses of any kind do not constitute irreparable injury; CLI-09-6, 69 NRC 135 n.25 (2009)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-9, 40 NRC 1, 7 (1994)
a party seeking to demonstrate irreparable injury must provide factual substantiation for that claim; CLI-09-6, 69 NRC 136 n.26 (2009)
to the extent applicant may be subject to unreasonable or burdensome discovery requests in the future, it is free to seek relief from the board, which has ample authority to prevent or modify unreasonable discovery demands; CLI-09-6, 69 NRC 136 (2009)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-9, 40 NRC 1, 7 n.1 (1994)
even in the absence of a petition for review, the Commission retains its supervisory power over adjudications to step in at any stage of a proceeding and decide a matter itself; CLI-09-3, 69 NRC 72 n.16 (2009)

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- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-11, 40 NRC 55, 61 (1994)
a party may not obtain interlocutory review merely by asserting potential delay and increased expense attributable to an allegedly erroneous ruling by the licensing board; CLI-09-6, 69 NRC 133 n.15 (2009)
mere commitment of resources to a hearing that may later prove to have been unnecessary does not constitute sufficient grounds for an interlocutory review of a licensing board order; CLI-09-6, 69 NRC 133 n.15 (2009)
the possibility that an interlocutory ruling may be wrong does not in itself justify interlocutory review; CLI-09-6, 69 NRC 137 n.38 (2009)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 69 (1994)
intervention is allowable to those who wish to support a proposal that will affect their interests if the proceeding has one outcome rather than another; LBP-09-6, 69 NRC 432 (2009)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 71-77 (1994)
petitioner is not required to provide expert testimony in support of his plausible scenario for injury; CLI-09-12, 69 NRC 546 n.39 (2009)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994)
an organization seeking representational standing on behalf of its members may meet the injury-in-fact requirement by demonstrating that at least one of its members, who has authorized the organization to represent his or her interest, will be injured by the possible outcome of the proceeding; LBP-09-4, 69 NRC 178 n.22 (2009)
the Commission is not inclined to disturb the licensing board's judgment on standing, absent a gross misapplication of the facts or applicable law; CLI-09-12, 69 NRC 547 (2009)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 74 (1994)
once a board has found that petitioners have presented a plausible injury, the board is not required to weigh the evidence to determine whether the harm to petitioners is beyond doubt; CLI-09-9, 69 NRC 346 (2009)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 (1994)
the plausible-chain-of-causation standard requires not that the potential harm to petitioner flow directly from the proposed action, but that the petitioner show that the chain of causation is plausible; CLI-09-12, 69 NRC 547 (2009)
- Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994)
the rule of thumb generally applied in reactor licensing proceedings includes a presumption of standing for persons who reside or frequent the area within a 50-mile radius of the facility; LBP-09-4, 69 NRC 181 (2009)
- Shain v. Veneman*, 376 F.3d 815, 818 (8th Cir. 2004)
federal courts of appeal have failed to reach a consensus on the question whether a risk of future injury must exceed a numerical threshold; LBP-09-4, 69 NRC 184 (2009)
- Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 59 n.8 (2009)
the peculiar procedural circumstances and the unusual nature of the equities favoring Intervenors may combine to render a decision *sui generis*, and as such, it should not be considered precedential; CLI-09-13, 69 NRC 578 n.13 (2009)
- Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 63-66 (2009)
the contention admissibility standards are not always applicable in the context of new or amended contentions, at least so long as the new or amended contention is "timely" filed relative to the event that provides the triggering basis for that contention; LBP-09-3, 69 NRC 159 n.12 (2009)
when the unique circumstances of a case could result in the compromise of a participant's hearing rights, the Commission has taken action to ensure that hearings are fair and accommodate the rights of participants; CLI-09-13, 69 NRC 578 (2009)
- Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 65 & n.47 (2009)
the "nontimely" filing standards in section 2.309(c) are generally applicable to new and amended contentions; LBP-09-3, 69 NRC 159 n.12 (2009)

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- Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), LBP-07-14, 66 NRC 169, 183 (2007)
representational standing requires a demonstration that one or more of an organization's members would have standing to intervene on their own, and that the identified members have authorized the organization to request a hearing on their behalf; LBP-09-4, 69 NRC 178 (2009)
to demonstrate organizational standing, petitioner must show injury-in-fact to the interests of the organization itself; LBP-09-4, 69 NRC 178 (2009)
- Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), LBP-07-14, 66 NRC 169, 188 (2007)
although petitioner's reply cannot be used to remedy a deficient petition, because opposing parties have no opportunity to respond, petitioner asks the board to apply a standard of "fundamental fairness," because petitioner filed its initial petition without the assistance of counsel; LBP-09-6, 69 NRC 426 (2009)
- Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 481-83 (2008)
boards' legal authority to reformulate contentions is discussed; CLI-09-12, 69 NRC 552 (2009)
- Shaw AREVA MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 482 (2008)
boards may reformulate contentions to eliminate extraneous issues or to consolidate issues for a more efficient proceeding; CLI-09-12, 69 NRC 552 (2009)
- Siegel v. AEC*, 400 F.2d 778, 784 (D.C. Cir. 1968)
guidance on what the term "common defense and security" encompasses is provided; LBP-09-4, 69 NRC 193 (2009)
not allowing new industrial needs for nuclear materials to preempt requirements of the military, keeping such materials in private hands secure against loss or diversion, and denying such materials and classified information to persons whose loyalties are not to the United States are encompassed in the "common defense and security" standard; LBP-09-1, 69 NRC 30 n.74 (2009); LBP-09-4, 69 NRC 193 (2009)
- Sierra Club v. Adams*, 578 F.2d 389, 392 (C.A.D.C. 1978)
once a litigant has standing to request invalidation of a particular agency action, it may do so by identifying all grounds on which the agency may have failed to comply with its statutory mandate; LBP-09-1, 69 NRC 24 n.52 (2009)
- Sierra Club v. Morton*, 405 U.S. 727, 737 (1972)
once a litigant has standing to request invalidation of a particular agency action, it may do so by identifying all grounds on which the agency may have failed to comply with its statutory mandate; LBP-09-1, 69 NRC 24 n.52 (2009)
- Sierra Club v. Sigler*, 695 F.2d 957, 970 (5th Cir. 1983)
the unavailability of information does not halt all government action under the National Environmental Policy Act, particularly when information may become available at a later time and can still be used to influence the agency's decision; LBP-09-7, 69 NRC 732-33 (2009)
- Sierra Club v. U.S. Department of Transportation*, 962 F. Supp. 1037, 1045 (N.D. Ill. 1997)
if federal agencies were free to ignore related environmental effects that they do not directly regulate, the National Environmental Policy Act would be meaningless; LBP-09-6, 69 NRC 404 (2009)
- Sierra Club, Lone Star Chapter v. Cedar Point Oil Co., Inc.*, 73 F.3d 546, 556 (5th Cir. 1996)
affiants' concern that discharges would impair water quality is sufficient to establish injury-in-fact; LBP-09-4, 69 NRC 185 n.44 (2009)
- South Carolina Electric & Gas Co.* (Virgil C. Summer Nuclear Station, Units 2 and 3), LBP-09-2, 69 NRC 87, 100 (2009)
in the overall COLA/DCD process, petitioners will have an opportunity to file new contentions related to material new information regarding site-specific plant design issues; LBP-09-8, 69 NRC 745 (2009)
- Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-07-3, 65 NRC 237, 254 (2007)
under section 2.309(f)(1)(vi), a properly formulated contention must focus on the license application in question, and challenge specific portions of, or alleged omissions from, the application, and thereby

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- establish that a genuine dispute exists with the applicant on a material issue of law or fact; LBP-09-4, 69 NRC 195 (2009)
- Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-07-3, 65 NRC 237, 267-68 (2007)
- contentions challenging the Waste Confidence Rule are inadmissible; LBP-09-4, 69 NRC 217 (2009)
- Southern Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3 and 4), LBP-09-3, 69 NRC 139, 164 (2009)
- petitioners raise a genuine dispute as to whether information on applicant's extended low-level radioactive waste storage plan should have been included in the combined license application; LBP-09-4, 69 NRC 230 (2009)
- Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 23 (1998)
- the Commission's general policy is to minimize interlocutory review; CLI-09-9, 69 NRC 365 (2009)
- Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 453 (1981)
- licensing board authority to sanction parties that violate NRC rules does not have the purpose of relieving intervenors of their adjudicatory expenses, but would merely have an incidental effect, as part of an overall effort to ensure that the licensing process moves along at an expeditious pace; LBP-09-1, 69 NRC 44 (2009)
- Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 454 (1981)
- when a participant fails to meet its obligations, a board should consider the imposition of sanctions against the offending party; LBP-09-1, 69 NRC 43 (2009)
- Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 457 (1981)
- failure of parties to raise matters in their findings submissions seemingly waives these items as grounds for a challenge to the final environmental impact statement; LBP-09-7, 69 NRC 651 n.12 (2009)
- System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-07-10, 65 NRC 144 (2007)
- the National Environmental Policy Act is not an appropriate vehicle for exploring questions about the potential for a terrorist attack upon a proposed nuclear facility; LBP-09-2, 69 NRC 103 (2009)
- System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), LBP-04-19, 60 NRC 277, 296-97 (2004)
- contentions challenging the Waste Confidence Rule are inadmissible; LBP-09-4, 69 NRC 217 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 72 (2009)
- the Commission will review a referred ruling only if it raises significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding; CLI-09-13, 69 NRC 577 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 72-73 (2009)
- Part 61 is inapplicable to onsite storage of licensee's own low-level radioactive waste; LBP-09-3, 69 NRC 163 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 73 (2009)
- in evaluating petitions to intervene, licensing boards are not free to ignore the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); CLI-09-8, 69 NRC 324 (2009)
- Part 61 applies only to land disposal facilities that receive waste from others, not to onsite facilities where licensee intends to store its own low-level radioactive waste; LBP-09-4, 69 NRC 221 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 75 (2009)
- a contention that directly or indirectly challenges Table S-3 is inadmissible; LBP-09-4, 69 NRC 222 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 75 n.30 (2009)
- Table S-3 assumes that solid, low-level waste from reactors will be disposed of through shallow land burial, and concludes that this kind of disposal will not result in the release of any significant effluent to the environment; LBP-09-4, 69 NRC 223 (2009)

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- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 76 (2009)
future availability of disposal capacity for low-level radioactive waste remains highly uncertain; LBP-09-4, 69 NRC 226 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 76-77 (2009)
the questions of the safety and environmental impacts of onsite low-level waste storage are largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions; LBP-09-4, 69 NRC 223 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 77 (2009)
even if the Commission had chosen to promulgate a low-level waste confidence rule, such a rule would not, if it followed the pattern of the high-level waste confidence rule, alter any requirements to consider in the adjudicatory proceeding the environmental impacts of waste storage during the term of the license; LBP-09-4, 69 NRC 223 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-3, 69 NRC 68, 77 n.42 (2009)
an application-specific contention suitable for litigation on the subject of onsite storage of low-level radioactive waste could be admissible; LBP-09-4, 69 NRC 223 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-08-16, 68 NRC 361, 413-15 (2008), *rev'd*, CLI-09-3, 69 NRC 68, 72-75 (2009)
a contention challenging potential unavailability of a disposal site for 10 C.F.R. 61.55(a) Class B or C low-level radioactive waste due to the recent closure of a low-level waste disposal facility is admitted; LBP-09-3, 69 NRC 160 (2009)
a contention that raises the issue of applicant's future compliance with the agency's regulations is not material to the proceeding; LBP-09-3, 69 NRC 163 (2009)
- Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-08-16, 68 NRC 361, 416 (2008)
contentions challenging the Waste Confidence Rule are inadmissible; LBP-09-4, 69 NRC 217 (2009)
the claim that applicant should consider licensing the site for a new reactor under 10 C.F.R. Part 61 is outside the scope of a combined license proceeding; LBP-09-4, 69 NRC 221 (2009)
- Tennessee Valley Authority* (Sequoyah Nuclear Plant, Units 1 and 2; Watts Bar Nuclear Plant, Unit 1), LBP-02-14, 56 NRC 15, 35 (2002)
there is no statutory or regulatory requirement that an applicant demonstrate any benefit from a requested license amendment; LBP-09-1, 69 NRC 41 n.121 (2009)
- 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)
the Commission defers to licensing boards' findings unless clearly erroneous, i.e., not even plausible in light of the record viewed in its entirety; CLI-09-7, 69 NRC 259 (2009)
- 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, 190 (2004)
for conclusions of law, the Commission reviews legal questions *de novo* and will reverse a licensing board's legal rulings if they are a departure from or contrary to established law; CLI-09-7, 69 NRC 259 (2009)
- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 1), ALAB-868, 25 NRC 912, 930 (1987)
support for a contention 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; LBP-09-6, 69 NRC 410 (2009)
- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-1, 37 NRC 1, 3 (1993)
although issuance of a full-power license closed out the notice of opportunity for hearing for Unit 1, issuance of a low-power license did not terminate the proceeding for Unit 2; CLI-09-5, 69 NRC 121 n.28 (2009)

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- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-4, 37 NRC 156, 161-62 (1993)
a nonparty seeking late intervention after the record has closed must address both the standard for late intervention and the standard for reopening a closed record; CLI-09-5, 69 NRC 124 (2009)
- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-4, 37 NRC 156, 164-65 (1993)
good cause has long been interpreted to mean that the information on which the proposed new contention is based was not previously available; CLI-09-5, 69 NRC 126 (2009)
- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992)
any contention that fails to directly controvert the application or that mistakenly asserts the application does not address a relevant issue can be dismissed; LBP-09-3, 69 NRC 154 (2009)
- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-1, 35 NRC 1, 6 (1992)
the Commission has held that only a party to a proceeding may move to reopen a closed record; CLI-09-5, 69 NRC 124 (2009)
- Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-12, 36 NRC 62, 67 (1992)
under the prior rules of practice, an intervenor was entitled to a hearing prior to issuance of the operating license; CLI-09-5, 69 NRC 121 n.28 (2009)
- Transnuclear, Inc.* (Export of 93.3% Enriched Uranium), CLI-99-15, 49 NRC 366, 368 (1999)
while denying standing as of right and finding a discretionary hearing to be unwarranted, the Commission permitted interested participants to summarize their positions in a 2-1/2 hour public meeting, at which it also requested presentations from the applicant and the Executive Branch; LBP-09-1, 69 NRC 39 n.115 (2009)
- U.S. Department of Energy* (High-Level Waste Repository), CLI-05-27, 62 NRC 715, 718 (2005)
litigation expense, even substantial and unrecoupable cost, does not constitute irreparable injury; CLI-09-6, 69 NRC 135 (2009)
- U.S. Department of Energy* (High-Level Waste Repository), CLI-08-11, 67 NRC 379, 384 (2008)
there is a longstanding presumption of regularity, under which adjudicatory bodies presume, absent strong and concrete evidence otherwise, that government agencies and their employees will do their jobs honestly and properly; CLI-09-14, 69 NRC 606 (2009)
- U.S. Department of Energy* (High-Level Waste Repository), LBP-04-20, 60 NRC 300, 313 & n.26 (2004)
regarding sufficiency of documentary production, perfection is not required and any production is bound to have some human mistakes; LBP-09-6, 69 NRC 448 (2009)
- U.S. Department of Energy* (High-Level Waste Repository), LBP-04-20, 60 NRC 300, 314-15 (2004)
petitioners in the high-level waste proceeding must make a good-faith effort to produce all documentary material; LBP-09-6, 69 NRC 448 (2009)
- U.S. Department of Energy* (High-Level Waste Repository), LBP-04-20, 60 NRC 300, 329-30 (2004)
a document's availability on the Internet does not authorize its exclusion from the Licensing Support Network; LBP-09-6, 69 NRC 448 (2009)
- U.S. Postal Service v. Gregory*, 534 U.S. 1, 10 (2001)
a presumption of regularity attaches to the actions of a federal agency; LBP-09-6, 69 NRC 459 (2009)
- Union of Concerned Scientists v. NRC*, 880 F.2d 552, 557-58 (D.C. Cir. 1989)
petitioners may not advocate additional requirements that are not supported by Commission case law and regulations; CLI-09-7, 69 NRC 263 (2009)
- Union of Concerned Scientists v. NRC*, 880 F.2d 552, 558 (D.C. Cir. 1989)
determinations regarding the meaning of "adequate protection" under the Atomic Energy Act are exactly the kinds of determinations where the Commission should be permitted discretion to make case-by-case judgments based on its technical expertise and on all the relevant information rather than by a mechanical verbal formula or a set of objective standards; CLI-09-7, 69 NRC 263 n.143 (2009)
- Union of Concerned Scientists v. NRC*, 920 F.2d 50, 53 n.2, 57 (D.C. Cir. 1990)
NRC contention admissibility and late-filed contention requirements are valid on their face and even the combined effect of the new contentions rule and the late-filing rule does not violate the Atomic

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- Energy Act, the Administrative Procedure Act, or the National Environmental Policy Act; CLI-09-7, 69 NRC 281 (2009)
- Union of Concerned Scientists v. NRC*, 920 F.2d 50, 55 (D.C. Cir. 1990)
new information concerning safety may be new evidence, but not necessarily raise a new issue, which is raised only when the argument itself (as distinct from its chances of success) was not apparent at the time of the application; CLI-09-7, 69 NRC 281 (2009)
whether an actual new issue is raised is a matter for the NRC to determine in the first instance and is reviewed deferentially; CLI-09-7, 69 NRC 281 (2009)
- Union of Concerned Scientists v. NRC*, 920 F.2d 50, 55-56 (D.C. Cir. 1990)
the balancing test in the Commission's late-filed contention rule, properly applied, is consistent with the Atomic Energy Act; CLI-09-7, 69 NRC 281 (2009)
- United States v. Adair*, 723 F.2d 1394 (9th Cir. 1983)
a Native American nation retains its water rights even after its land rights have been extinguished, but those reserved rights must originate in a treaty in order to survive; LBP-09-6, 69 NRC 475 (2009)
- United States v. Sioux Nation of Indians*, 448 U.S. 371, 382-83, 410-11 (1980)
because Congress rescinded the portion of the Fort Laramie Treaty that granted the Black Hills territory to the Sioux Tribe, through Congress's power of eminent domain, any claims to ownership of the land upon which a mining site sits cannot support standing; CLI-09-9, 69 NRC 337 (2009)
- United States v. Winans*, 198 U.S. 371 (1905)
a Native American nation retains its water rights even after its land rights have been extinguished, but those reserved rights must originate in a treaty in order to survive; LBP-09-6, 69 NRC 475 (2009)
- USEC Inc. (American Centrifuge Plant)*, CLI-05-11, 61 NRC 309, 311-12 (2005)
it is petitioners' burden to show a specific and plausible means whereby a licensing decision may harm them; CLI-09-9, 69 NRC 345 (2009)
where there is no obvious potential for offsite harm, petitioner must show a specific and plausible means of how the challenged action may harm him or her; CLI-09-9, 69 NRC 345 n.72 (2009)
- USEC Inc. (American Centrifuge Plant)*, CLI-06-9, 63 NRC 433, 437 (2006)
contention admissibility requirements are deliberately strict and any contention that does not satisfy the requirements will be rejected; CLI-09-7, 69 NRC 259 (2009); CLI-09-14, 69 NRC 590 (2009)
intervenors must provide a clear statement as to the basis for their contentions and the submission of supporting information and references to specific documents and sources that establish the validity of the contention; CLI-09-8, 69 NRC 323 (2009)
- USEC Inc. (American Centrifuge Plant)*, CLI-06-9, 63 NRC 433, 437-38 (2006)
NRC implements its responsibilities under the National Historic Preservation Act in conjunction with the National Environmental Policy Act process; CLI-09-9, 69 NRC 348 n.89 (2009); CLI-09-12, 69 NRC 566 n.137 (2009)
- USEC Inc. (American Centrifuge Plant)*, CLI-06-9, 63 NRC 433, 439 n.32 (2006)
the Commission will affirm decisions on the admissibility of contentions where the appellant points to no error of law or abuse of discretion; CLI-09-7, 69 NRC 260 (2009)
- USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 458 (2006)
petitioners may not raise entirely new arguments in a reply brief unless the standards for late-filed contentions are met; CLI-09-7, 69 NRC 276 (2009)
petitioners may not skirt contention rules by initially filing unsupported contentions, and later recasting or modifying their contentions on appeal with new arguments never raised before the board; CLI-09-5, 69 NRC 123 (2009); CLI-09-12, 69 NRC 546 (2009)
- USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 464 (2006)
a single, past violation of licensee's state permit could not demonstrate an ongoing pattern of violations or disregard for regulations that might be expected to recur in the future; CLI-09-9, 69 NRC 355 (2009)
- USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 472 (2006)
expert opinion must not be limited to bald conclusory statements such as that the application under consideration is "deficient," "inadequate," or "wrong"; LBP-09-6, 69 NRC 411 (2009)

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- Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 551 (1978)
applicant is not required to examine all possible alternatives, but only those that can reasonably accomplish its elected purpose; LBP-09-2, 69 NRC 111 (2009)
if effects are remote or speculative, the environmental impact statement need not discuss them; LBP-09-7, 69 NRC 632, 719 (2009)
- Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989)
agencies may decline to examine issues that the agency in good faith considers remote and speculative or inconsequential small; LBP-09-7, 69 NRC 631-32, 719 (2009)
- Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 48 (1989), *vacated in part on other grounds and remanded*, CLI-90-4, 31 NRC 333 (1990)
material provided in support of a contention will be carefully examined by the board to confirm that on its face it does supply adequate support for the contention; LBP-09-3, 69 NRC 154 (2009)
- Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-90-4, 31 NRC 333 (1990)
if the accident sought to be considered is sufficiently unlikely, such that it can be characterized fairly as remote and speculative, then consideration under the National Environmental Policy Act is not required as a matter of law; LBP-09-4, 69 NRC 208 (2009)
- Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-90-7, 32 NRC 129, 131 (1990)
low probability is the key to applying the National Environmental Policy Act 's rule-of-reason test to contentions that allege that a specific accident scenario presents a significant environmental impact that must be evaluated; LBP-09-4, 69 NRC 208 (2009)
- Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000)
an organization seeking to intervene in a representational capacity must demonstrate that the licensing action will affect at least one of its members, identify that member by name and address, and show that it is authorized by that member to request a hearing on his or her behalf; LBP-09-2, 69 NRC 94 n.17 (2009); LBP-09-3, 69 NRC 149 (2009); LBP-09-6, 69 NRC 382 (2009)
- Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 164 (2000)
the Commission will not accept the filing of a vague, unparticularized issue; CLI-09-7, 69 NRC 277 n.230 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 303-04 (2008)
an individual may satisfy standing requirements by demonstrating that his or her residence or activities are within the geographical area that might be affected by an accidental release of fission products, and in proceedings involving nuclear power plants this area has been defined as being within a 50-mile radius of such a plant; LBP-09-4, 69 NRC 178 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 309 (2008)
intervenors are not necessarily foreclosed from raising their concerns about the environmental impacts of dredging if and when a decision is made later to dredge a federal navigation channel; LBP-09-7, 69 NRC 730 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 313 n.86 (2008)
partial closure of a low-level waste disposal facility does not directly affect the disposal of Greater-Than-Class-C radioactive waste because the disposal of that type of waste is the responsibility of the federal government; LBP-09-4, 69 NRC 221 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 313-14 (2008)
a contention that provides a specific statement of the legal or factual issue sought to be raised by alleging, in relevant part, that the applicant's environmental report should have examined the environmental consequences of long-term onsite storage of low-level radioactive waste is admissible; LBP-09-4, 69 NRC 225 (2009)

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- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 313-21 (2008)
contention challenging potential unavailability of a disposal site for 10 C.F.R. 61.55(a) Class B or C low-level radioactive waste due to the recent closure of a low-level waste disposal facility is admitted; LBP-09-3, 69 NRC 160 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 315 (2008)
challenge to the legal sufficiency of the environmental report included in the combined license application is within the scope of the proceeding; LBP-09-4, 69 NRC 225 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 316-17 (2008)
a contention that raises the issue of applicant's future compliance with the agency's regulations is not material to the proceeding; LBP-09-3, 69 NRC 163 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 316-18 (2008)
the claim that applicant should consider licensing the site for a new reactor under 10 C.F.R. Part 61 is outside the scope of a combined license proceeding; LBP-09-4, 69 NRC 221 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 317 (2008)
a contention of omission need only identify the regulatively required missing information and provide enough facts to show that the application is incomplete; LBP-09-3, 69 NRC 161 (2009)
even assuming arguendo that applicant might someday require a permit under Part 61 for a disposal facility, that issue is too speculative at the combined license stage and is therefore not material to the findings NRC must make to support the action that is involved in the proceeding; LBP-09-4, 69 NRC 221 (2009)
facts relied upon in a contention of omission need not show that the facility cannot be safely operated, but rather that the application is incomplete; LBP-09-4, 69 NRC 190 (2009)
if applicant cures the omission, then a contention of omission will become moot; LBP-09-4, 69 NRC 190 (2009)
Part 61 of Title 10 applies only to land disposal facilities that receive waste from others, not to onsite facilities where the licensee intends to store its own low-level radioactive waste; CLI-09-3, 69 NRC 73 (2009)
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; LBP-09-4, 69 NRC 190 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 321-25 (2008)
an environmental contention is not litigable in a combined license proceeding if it has already been resolved in an early site permit proceeding; CLI-09-3, 69 NRC 71 n.8 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-146, 6 AEC 631, 633-34 (1973)
NRC intervention rules are strict by design; LBP-09-1, 69 NRC 17 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-363, 4 NRC 631, 633-34 (1976)
discretionary intervention is granted to an intervenor who raised a serious issue and was well equipped to make a contribution to the record; LBP-09-6, 69 NRC 438 n.386 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 56 (1979)
for construction permit and operating license proceedings, the Commission generally has recognized a presumption in favor of standing for those persons who have frequent contacts with the area near a nuclear power plant; LBP-09-4, 69 NRC 177 (2009)
the rule of thumb generally applied in reactor licensing proceedings includes a presumption of standing for persons who reside or frequent the area within a 50-mile radius of the facility; LBP-09-4, 69 NRC 181 (2009)

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- Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-536, 9 NRC 402, 404 n.2 (1979)
there are certain organizations for which member authorization for organizational standing might be presumed; LBP-09-6, 69 NRC 434 (2009)
- Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), LBP-84-40A, 20 NRC 1195, 1199 (1984)
a board's efforts at contention reformulation did not achieve the goal of clarity, succinctness, and a more efficient proceeding; CLI-09-12, 69 NRC 553 (2009)
- Wilderness Workshop v. U.S. Bureau of Land Management*, 531 F.3d 1220, 1229 (10th Cir. 2008)
projects, for the purposes of the National Environmental Policy Act, are described as proposed actions, or proposals in which action is imminent; CLI-09-14, 69 NRC 593 n.77 (2009)
- Withrow v. Larkin*, 421 U.S. 35, 55 (1975)
there is a longstanding presumption of regularity, under which adjudicatory bodies presume, absent strong and concrete evidence otherwise, that government agencies and their employees will do their jobs honestly and properly; CLI-09-14, 69 NRC 606 (2009)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996)
a detailed discussion of the requirements to show standing is provided; LBP-09-2, 69 NRC 94 n.17 (2009)
a requirement for a nexus between the injury claimed and the right being asserted was rejected; LBP-09-1, 69 NRC 18 (2009)
contemporaneous judicial standing concepts are applied in NRC proceedings; LBP-09-3, 69 NRC 149 (2009)
once a party demonstrates that it has standing to intervene on its own accord, that party may then raise any contention that, if proved, will afford the party relief from the injury it relies upon for standing; CLI-09-9, 69 NRC 340 (2009); LBP-09-1, 69 NRC 18 (2009); LBP-09-4, 69 NRC 187 (2009)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 n.3 (1996)
intervenor's contentions may be limited to those that will afford it relief from the injuries asserted as a basis for standing; LBP-09-1, 69 NRC 18 n.19 (2009)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 251 (1996)
contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-09-3, 69 NRC 152-53 (2009)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 210 n.13 (1998)
petitioner is not required to provide expert testimony in support of his plausible scenario for injury; CLI-09-12, 69 NRC 546 (2009)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-99-24, 50 NRC 219, 222 n.3 (1999)
although the Atomic Safety and Licensing Appeal Board was disbanded in 1991, its decisions still carry precedential value; CLI-09-2, 69 NRC 63 n.33 (2009)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 75-76 (1996), *rev'd in part on other grounds*, CLI-96-7, 43 NRC 235 (1996)
the requirement of materiality often dictates that any contention alleging deficiencies or errors in an application also indicate some significant link between the claimed deficiency and either the health and safety of the public or the environment; LBP-09-3, 69 NRC 154 (2009)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1996), *rev'd in part on other grounds*, CLI-96-7, 43 NRC 235 (1996)
any supporting material provided by a petitioner, including those portions of the material that are not relied upon, is subject to board scrutiny; LBP-09-3, 69 NRC 154 (2009)
- Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-99-27, 50 NRC 45, 53 (1999)
licensing boards have awarded payment of litigation fees and expenses from a licensee to an intervenor if there has been legal harm to the intervenors caused by some activity or action of the licensee; LBP-09-1, 69 NRC 43 n.134 (2009)

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- 10 C.F.R. 2.205
a civil penalty of \$130,000 was imposed on licensee for failure of the radio only-activation feature of the emergency notification system to meet its test acceptance criteria; DD-09-1, 69 NRC 511-12 (2009)
- 10 C.F.R. 2.206
following termination of a proceeding, the proper avenue for a person challenging an existing license is to file a request to modify, suspend, or revoke a license; CLI-09-5, 69 NRC 121 n.27 (2009)
petitioners or any other member of the public may seek enforcement action with respect to ongoing licensed activities, including licensed exports; CLI-09-12, 69 NRC 570 n.159 (2009)
request for suspension of operations and imposition of civil penalty for deficiencies in licensee's siren system and discharges of radiological and chemical carcinogens is denied; DD-09-1, 69 NRC 502-19 (2009)
- 10 C.F.R. 2.302
all filings in adjudicatory proceedings are to be sent through the NRC's E-Filing system; CLI-09-4, 69 NRC 81 n.1 (2009)
- 10 C.F.R. 2.304(d)
an electronic signature on a document serves as the signer's representation that the document has been subscribed in the capacity specified with full authority, that he or she has read it and knows the contents, that to the best of his or her knowledge, information, and belief the statements made in it are true, and that it is not interposed for delay; LBP-09-6, 69 NRC 446 (2009)
- 10 C.F.R. 2.304(d)(1)
when its LSN compliance is challenged, petitioner need only state in its reply that it has complied with the LSN requirements; LBP-09-6, 69 NRC 386 (2009)
- 10 C.F.R. 2.307(a)
the Commission or presiding officer may extend a time limit upon a showing of good cause; CLI-09-4, 69 NRC 82 (2009)
- 10 C.F.R. 2.309
a "potential party" is any person who intends, or may intend, to participate as a party in the proceeding by demonstrating standing and by filing an admissible contention; LBP-09-5, 69 NRC 306 n.2 (2009)
no language in the NRC rule on standing and contentions even suggests that intervenors must show standing with regard to one contention specifically and separately from its standing to litigate the other contentions already admitted; LBP-09-1, 69 NRC 17 (2009)
- 10 C.F.R. 2.309(a)
anyone who wishes to intervene as a party in the high-level waste proceeding must establish that it has standing, be able to demonstrate substantial and timely Licensing Support Network compliance, and proffer at least one admissible contention; LBP-09-6, 69 NRC 381 (2009)
in ruling on intervention petitions in the high-level waste proceeding, boards are to consider any failure of the petitioner to participate as a potential party in the pre-license application phase under subpart J of this part; LBP-09-6, 69 NRC 382, 383-84 (2009)
to be admitted as a party in an NRC proceeding, a petitioner must establish standing by satisfying the requirements set forth in section 2.309(d); LBP-09-2, 69 NRC 93 (2009)
- 10 C.F.R. 2.309(c)
applying the standards for late-filed contentions, a board concluded that an e-mail citing only sources that had been published, in some cases years earlier, contained no new information; CLI-09-12, 69 NRC 540 n.10 (2009)

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- good cause is the most significant of the late-filing factors; CLI-09-12, 69 NRC 549 n.61 (2009)
- if the design certification rulemaking amendment application results in updates to applicant's combined license application, new contentions may be filed, subject to the requirements of this section; CLI-09-8, 69 NRC 325 n.36 (2009)
- if, within 60 days after pertinent information that would support the framing of a contention first becomes available, intervenors submit a particularized and otherwise admissible contention regarding the construction of the facility, then the contention will be deemed timely without the need to satisfy the balancing test for late-filing requirements; CLI-09-2, 69 NRC 59, 65, 66 n.60 (2009)
- opportunities are provided to file new or amended contentions to address new developments when they arise; CLI-09-4, 69 NRC 85 (2009)
- requirements for untimely filings are stringent; CLI-09-7, 69 NRC 260 (2009)
- the appropriate mechanism for intervenor to have sought to raise a new issue where the record of the proceeding had closed upon the board's disposition of intervenor's original contentions is to address the reopening standards contemporaneously with a late-filed intervention petition, which must satisfy the standards for both contention admissibility and late filing; CLI-09-5, 69 NRC 124 (2009)
- where new material sought to be introduced in a motion to reopen does not deal with a matter previously in controversy, the person moving to reopen the record must also meet the standards for filing untimely contentions; CLI-09-5, 69 NRC 125 (2009)
- 10 C.F.R. 2.309(c)(1)
- finding no good cause for late filing tips the balance against admitting a contention; CLI-09-7, 69 NRC 247 (2009)
- good cause is the most important factor to be weighed in allowing an untimely filing; LBP-09-6, 69 NRC 477 (2009)
- 10 C.F.R. 2.309(c)(2)
- petitioner must address all eight factors set forth in section 2.309(c)(1); CLI-09-7, 69 NRC 260 (2009)
- 10 C.F.R. 2.309(d)(1)
- a petition to intervene must provide information supporting the petitioner's claim to standing, including the nature of the petitioner's right under the governing statutes to be made a party, the nature of the petitioner's interest in the proceeding, and the possible effect of any decision or order on the petitioner's interest; LBP-09-4, 69 NRC 177 (2009); LBP-09-6, 69 NRC 382 (2009)
- 10 C.F.R. 2.309(d)(1)(iii)
- petitioner must state the nature and extent of his/her/its property, financial, or other interest in the proceeding, a concept separate and apart from what constitutes a contention; LBP-09-1, 69 NRC 17 (2009)
- 10 C.F.R. 2.309(d)(2)(ii)
- a board may grant party status only to a single representative for each affected federally recognized Indian Tribe; LBP-09-6, 69 NRC 428 (2009)
- 10 C.F.R. 2.309(d)(2)(iii)
- an affected federally recognized Indian Tribe is automatically entitled to participate in the Yucca Mountain proceeding; LBP-09-6, 69 NRC 427 (2009)
- because the high-level waste repository is not to be located within California's boundaries, California is not entitled to automatic standing in the proceeding; LBP-09-6, 69 NRC 424 (2009)
- standing as of right has been conferred in the high-level waste proceeding on the state and local governmental bodies in which the geologic repository operations area is located as well as any affected federally recognized indian tribe if the contention admission requirements are satisfied with respect to at least one contention; LBP-09-6, 69 NRC 381 (2009)
- 10 C.F.R. 2.309(f)
- applying the standards for late-filed contentions, a board concluded that an e-mail citing only sources that had been published, in some cases years earlier, contained no new information; CLI-09-12, 69 NRC 540 n.10 (2009)
- requirements for contention admissibility are described; CLI-09-5, 69 NRC 122 (2009)
- 10 C.F.R. 2.309(f)(1)
- although a board is free to view intervenors' support for its contention in the light most favorable to intervenors, the board may not ignore the contention admissibility requirements of this section; CLI-09-3, 69 NRC 73 (2009)

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- although a board may view supporting information in a light favorable to a petitioner, a board may not simply infer the bases for a contention; CLI-09-7, 69 NRC 275 (2009)
- any new or amended contentions must satisfy the usual contention admissibility requirements; CLI-09-2, 69 NRC 66 (2009)
- even if the late-filed contention criteria are satisfied, proposed contentions still must meet the threshold admissibility standards contained in this section; CLI-09-7, 69 NRC 262 (2009)
- for a contention to be admissible, it must satisfy six criteria; CLI-09-8, 69 NRC 323 (2009); LBP-09-2, 69 NRC 95 (2009); LBP-09-3, 69 NRC 152 (2009); LBP-09-4, 69 NRC 189 (2009); LBP-09-8, 69 NRC 737 (2009)
- intervenor are obliged to offer specific contentions on material issues, supported by alleged facts or expert opinion; CLI-09-8, 69 NRC 323 (2009)
- not all of the contention admissibility requirements necessarily apply to legal-issue contentions; LBP-09-6, 69 NRC 422 (2009)
- pleading requirements for admissible contentions are discussed; CLI-09-7, 69 NRC 260 (2009); CLI-09-12, 69 NRC 554 (2009)
- the appropriate mechanism for intervenor to have sought to raise a new issue where the record of the proceeding had closed upon the board's disposition of intervenor's original contentions is to address the reopening standards contemporaneously with a late-filed intervention petition, which must satisfy the standards for both contention admissibility and late filing; CLI-09-5, 69 NRC 124 (2009)
- the purpose of this section is to focus litigation on concrete issues and result in a clearer and more focused record for decision; LBP-09-4, 69 NRC 189 (2009)
- to participate as a party in a proceeding, intervention petitioner must not only establish standing, but must also proffer at least one admissible contention that meets the requirements of this section; LBP-09-2, 69 NRC 93 (2009); LBP-09-4, 69 NRC 189 (2009)
- when the Department of Energy is before the Commission, a heightened standard applies for the admissibility of integrity contentions beyond what is imposed by this section; LBP-09-6, 69 NRC 467 (2009)
- 10 C.F.R. 2.309(f)(1)(i)
contentions may raise issues of law as well as issues of fact; CLI-09-14, 69 NRC 590 (2009); LBP-09-6, 69 NRC 422 (2009)
- 10 C.F.R. 2.309(f)(1)(i)-(ii)
a contention of omission must describe the information that should have been included in the environmental report, provide the legal basis that requires the omitted information to be included, and demonstrate that the contention is within the scope of the proceeding; LBP-09-4, 69 NRC 190 (2009)
- 10 C.F.R. 2.309(f)(1)(i)-(vi)
an admissible contention must satisfy six pleading requirements; LBP-09-6, 69 NRC 389 (2009)
NRC pleading standards do not allow for mere notice pleading, or the filing of general, vague, or unsupported claims to be elaborated on at some later time; CLI-09-5, 69 NRC 120 n.21 (2009)
the contention admissibility requirements are discussed; LBP-09-1, 69 NRC 27-42 (2009)
- 10 C.F.R. 2.309(f)(1)(iii)
a challenge to the legal sufficiency of the application is within the scope of a combined license proceeding; LBP-09-3, 69 NRC 160 (2009)
a contention that challenges the legality of foreign ownership of applicant is within the scope of a combined operating license proceeding; LBP-09-4, 69 NRC 194 (2009)
all proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to the licensing board; LBP-09-3, 69 NRC 153 (2009)
an admissible contention must raise an issue that is both within the scope of the proceeding, generally defined by the hearing notice, and material to the findings the NRC must make to support the action involved; LBP-09-6, 69 NRC 390 (2009)
any contention directed at a design undergoing rulemaking review is inadmissible because all matters that are subject of a rulemaking are outside the scope of licensing proceedings; LBP-09-8, 69 NRC 739 n.13 (2009)

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- 10 C.F.R. 2.309(f)(1)(iii)-(iv)
petitioner must demonstrate that the issue raised in a contention is both within the scope of the proceeding and material to the findings the NRC must make to support the action that is involved in the proceeding; LBP-09-3, 69 NRC 152 (2009)
- 10 C.F.R. 2.309(f)(1)(iii)-(vi)
whether requirements of other federal agencies have been met is not a proper subject for an NRC proceeding; LBP-09-6, 69 NRC 482 (2009)
- 10 C.F.R. 2.309(f)(1)(iv)
a contention that challenges the legality of foreign ownership of applicant is material to the findings NRC Staff must make to support the issuance of the combined operating license; LBP-09-4, 69 NRC 194 (2009)
an admissible contention must raise an issue that is both within the scope of the proceeding, generally defined by the hearing notice, and material to the findings the NRC must make to support the action involved; LBP-09-6, 69 NRC 390 (2009)
even assuming arguendo that applicant might someday require a permit under Part 61 for a disposal facility, that issue is too speculative at the combined license stage and is therefore not 'material to the findings NRC must make to support the action that is involved in the proceeding; LBP-09-4, 69 NRC 221 (2009)
if a contention alleges that the application omits information required by law, it necessarily presents a genuine dispute with the applicant on a material issue and raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance; LBP-09-4, 69 NRC 190 (2009)
to be admissible, contentions must assert an issue of law or fact that is material to the outcome of a licensing proceeding, meaning that the subject matter of the contention must impact the grant or denial of a pending license application; LBP-09-3, 69 NRC 154 (2009)
- 10 C.F.R. 2.309(f)(1)(v)
even if late-filing standards are satisfied, support for a contention must be provided when the contention is filed, not at some later date; CLI-09-7, 69 NRC 276 (2009)
in proffering contentions for admission, petitioner need not make the full investigation and present both sides of the case; LBP-09-6, 69 NRC 468 (2009)
intervenor is not required to make its case at the contention stage of the proceeding, but rather to indicate what facts or expert opinions of which it is aware at that point in time that provide the basis for its contention; LBP-09-1, 69 NRC 28 n.68 (2009)
intervenor has a regulatory burden to present facts or expert opinion to support their contention; CLI-09-2, 69 NRC 65 (2009); LBP-09-3, 69 NRC 153 (2009)
petitioner must provide a concise statement of the facts that support its position and upon which petitioner intends to rely at the hearing; LBP-09-4, 69 NRC 190 (2009)
requiring petitioner to allege facts or to provide an affidavit that sets out the factual and/or technical bases in support of a legal contention as opposed to a factual contention is not necessary; CLI-09-14, 69 NRC 590 (2009); LBP-09-6, 69 NRC 433 (2009)
the pleading requirements 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; LBP-09-4, 69 NRC 190 (2009)
the requirements of this section generally are fulfilled when the sponsor of an otherwise acceptable contention provides a brief recitation of the factors underlying the contention or references to documents and text that provide such reasons; LBP-09-4, 69 NRC 207 (2009)
there is no requirement that an expert's opinion must include specific references to supporting sources and documents; LBP-09-6, 69 NRC 410 (2009)
- 10 C.F.R. 2.309(f)(1)(v)-(vi)
in passing upon whether a particular contention meets the admissibility test, boards have confined their inquiry to whether, with or without references to particular sources or documents, the supporting expert opinion has offered enough to justify a conclusion that the contention is worthy of further consideration on its merits; LBP-09-6, 69 NRC 412 (2009)
- 10 C.F.R. 2.309(f)(1)(vi)
a contention of omission cannot be admissible unless each failure to include relevant information is identified with specificity and with supporting reasons; CLI-09-8, 69 NRC 324 (2009)

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- a contention of omission claims that the application fails to contain information on a relevant matter as required by law and provides the supporting reasons for the petitioner's belief; LBP-09-4, 69 NRC 190 (2009)
- a contention that fails to address the information in the application and show a genuine dispute thereon is inadmissible; CLI-09-5, 69 NRC 123 (2009)
- all properly formulated contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact; CLI-09-4, 69 NRC 83 (2009); LBP-09-3, 69 NRC 154 (2009)
- challenge to applicant's statistical techniques is inadmissible because petitioners failed to reference or discuss the specific portions of the application that they dispute or to adequately identify a 'material issue of disputed fact; CLI-09-7, 69 NRC 273 n.215 (2009)
- intervenor's concise statement of alleged facts that support the contention and reliance on various parts of the application itself satisfy the requirement that mandates references to specific portions of the application; LBP-09-1, 69 NRC 27-28 (2009)
- petitioner must provide support for the proposition that there is an omission from the application or identify any error in any specific part of the application as well as present sufficient information to show the existence of a genuine dispute with the applicant; LBP-09-8, 69 NRC 741 (2009)
- 10 C.F.R. 2.309(f)(2)
- amended or new contentions may be filed after the initial filing only with leave of the presiding officer; CLI-09-7, 69 NRC 262 (2009)
- if the design certification rulemaking amendment application results in updates to applicant's combined license application, new contentions may be filed, subject to the requirements of this section; CLI-09-8, 69 NRC 325 n.36 (2009)
- in the context of licensing board adjudication of NEPA-related contentions, intervenors are required to file contentions in the first instance based on the applicant's environmental report; LBP-09-7, 69 NRC 634 (2009)
- opportunities are provided to file new or amended contentions to address new developments when they arise; CLI-09-4, 69 NRC 85 (2009)
- petitioners are to file NEPA-related contentions based on the applicant's environmental report, but may amend those contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement that differ significantly from the data or conclusions in the applicant's documents; CLI-09-9, 69 NRC 351 n.104 (2009); CLI-09-12, 69 NRC 566 n.141 (2009); LBP-09-2, 69 NRC 107 (2009)
- petitioners may not skirt contention rules by initially filing unsupported contentions, and later recasting or modifying their contentions on appeal with new arguments never raised before the board; CLI-09-5, 69 NRC 123 (2009)
- requirements for late-filed contentions are stringent; CLI-09-7, 69 NRC 260 (2009)
- showing required for admission of new or amended contentions is described; CLI-09-7, 69 NRC 262 (2009)
- the appropriate mechanism for intervenor to have sought to raise a new issue where the record of the proceeding had closed upon the board's disposition of intervenor's original contentions is to address the reopening standards contemporaneously with a late-filed intervention petition, which must satisfy the standards for both contention admissibility and late filing; CLI-09-5, 69 NRC 124 (2009)
- the new information contemplated by this section is not information created, developed, and adduced by the very petitioner who proposes to use it to support his nontimely contentions under a guise of timeliness; LBP-09-6, 69 NRC 477 (2009)
- 10 C.F.R. 2.309(h)(1)
- whether a petitioner has met the regulatory requirements for Licensing Support Network compliance is a proper subject for challenge in an answer to an intervention petition; LBP-09-6, 69 NRC 386 (2009)
- 10 C.F.R. 2.309(h)(2)
- although interested governmental participants are afforded many rights and responsibilities with respect to participation in a proceeding, they are limited to participation on admitted contentions; LBP-09-6, 69 NRC 456 (2009)

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- once petitioners LSN compliance has been raised in an answer to an intervention petition, petitioner then has the opportunity to respond to the challenges in its reply; LBP-09-6, 69 NRC 386 (2009)
- 10 C.F.R. 2.309(h)(3)
although interested governmental participants are afforded many rights and responsibilities with respect to participation in a proceeding, they are limited to participation on admitted contentions; LBP-09-6, 69 NRC 456 (2009)
- 10 C.F.R. 2.310
an order selecting a hearing procedure may be appealed by any party on the question as to whether the selection of the particular hearing procedures was in clear contravention of the criteria set forth in this section; CLI-09-7, 69 NRC 279 (2009)
- 10 C.F.R. 2.310(a)
a materials license amendment proceeding may be held under Subpart L but the provisions of Subpart G may be used in any other proceeding as ordered by the Commission; CLI-09-12, 69 NRC 572 (2009)
- 10 C.F.R. 2.310(d)
petitioner's assertion that licensee and its parent company are not trustworthy does not satisfy the Subpart G hearing requirement; CLI-09-7, 69 NRC 243 (2009)
Subpart G procedures are appropriate in license renewal proceedings only where the credibility of an eyewitness may reasonably be expected to be at issue and/or the motive or intent of the party or eyewitness is material to the resolution of the contested matter; CLI-09-7, 69 NRC 242-43 (2009)
- 10 C.F.R. 2.311
interlocutory review of the presiding officer's decision will be granted where the decision either threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review, or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-09-9, 69 NRC 365 (2009)
litigant may challenge a presiding officer's adverse decision on access to SUNSI by seeking Commission review; LBP-09-5, 69 NRC 307 (2009)
- 10 C.F.R. 2.311(b)
in situations in which a board denies a petition to intervene in its entirety or grants a petition to intervene that, according to an opposing litigant, should have been denied in its entirety, the losing litigant has a right to Commission review; CLI-09-6, 69 NRC 137 n.37 (2009)
- 10 C.F.R. 2.311(c)
an interested state or local governmental body which has not been admitted as a party under section 2.309 shall be afforded a reasonable opportunity to participate in a hearing; LBP-09-2, 69 NRC 95 (2009)
in situations in which a board denies a petition to intervene in its entirety or grants a petition to intervene that, according to an opposing litigant, should have been denied in its entirety, the losing litigant has a right to Commission review; CLI-09-6, 69 NRC 137 n.37 (2009)
- 10 C.F.R. 2.311(d)
an immediate right to appeal a board ruling selecting a hearing procedure is provided; CLI-09-12, 69 NRC 542 n.19 (2009)
the limit for appealing a board's ruling on selection of hearing procedures is 10 days; CLI-09-7, 69 NRC 279 (2009)
- 10 C.F.R. 2.311(e)
an appeal must be filed with the Commission no later than 10 days after issuance of the order selecting a hearing procedure; CLI-09-7, 69 NRC 279 (2009)
- 10 C.F.R. 2.315(c)
a state could seek to have licensing proceedings suspended pending an NRC decision on its rulemaking petition, if it participated in the proceedings as an interested state; CLI-09-10, 69 NRC 524 (2009)
although interested governmental participants are afforded many rights and responsibilities with respect to participation in a proceeding, they are limited to participation on admitted contentions; LBP-09-6, 69 NRC 456 (2009)
except in a proceeding under section 52.103, the requestor/petitioner may file a reply to any answer, but no other written answers or replies will be entertained; LBP-09-6, 69 NRC 456 (2009)

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- 10 C.F.R. 2.319
a request for briefs on legal issues is one of the many tools available to a presiding officer generally in the conduct of a proceeding; CLI-09-14, 69 NRC 591 (2009)
- 10 C.F.R. 2.319(j)
NRC rules of procedure authorize boards to hold prehearing conferences for the purposes of simplifying or clarifying the issues for hearing, after which a board might admit a revised contention; CLI-09-12, 69 NRC 553 (2009)
- 10 C.F.R. 2.319(l)
the Commission may take interlocutory review of questions or rulings that a licensing board refers to the Commission; CLI-09-6, 69 NRC 132 n.13 (2009)
- 10 C.F.R. 2.323(b)
discussion and exchange of information between the parties is encouraged, so that if filing a motion becomes necessary, the parties can at least inform the board of what facts remain in contention; LBP-09-6, 69 NRC 448 (2009)
- 10 C.F.R. 2.323(e)
motions for reconsideration may not be filed except upon leave of the presiding officer or the Commission, upon a showing of compelling circumstances, such as the existence of a clear and material error in a decision, which could not have reasonably been anticipated, that renders the decision invalid; CLI-09-8, 69 NRC 328 n.48 (2009)
motions for reconsideration must be filed within 10 days of the action for which reconsideration is requested; CLI-09-8, 69 NRC 328 n.48 (2009)
- 10 C.F.R. 2.323(f)
a board may refer a ruling to the Commission if it determines that prompt decision is necessary to prevent detriment to the public interest or unusual delay or expense, or if the ruling involves a novel issue that merits Commission review at the earliest opportunity; CLI-09-13, 69 NRC 577 (2009)
the Commission may take interlocutory review of questions or rulings that a licensing board certifies to the Commission; CLI-09-6, 69 NRC 132 n.13 (2009)
- 10 C.F.R. 2.323(f)(1)
the presiding officer may refer a ruling to the Commission if, in the presiding officer's judgment, prompt decision is necessary to prevent detriment to the public interest or unusual delay or expense, or if the ruling involves a novel issue that merits Commission review at the earliest opportunity; CLI-09-3, 69 NRC 72 (2009); CLI-09-6, 69 NRC 134 n.19 (2009)
the standard in this section does not apply to litigants' petitions for interlocutory review; CLI-09-6, 69 NRC 134 n.19 (2009)
- 10 C.F.R. 2.325
as the proponent of the agency action at issue, an applicant generally has the burden of proof in a licensing proceeding; LBP-09-7, 69 NRC 635 (2009)
- 10 C.F.R. 2.326
criteria governing motions to reopen are discussed; CLI-09-7, 69 NRC 286 (2009)
if, within 60 days after pertinent information that would support the framing of a contention first becomes available, intervenors submit a particularized and otherwise admissible contention regarding the construction of the facility, then the contention will be deemed timely without the need to satisfy the balancing test for reopening the record; CLI-09-2, 69 NRC 59 (2009)
in the circumstances of the high-level waste proceeding, the criteria and procedures of this section are either irrelevant or redundant; LBP-09-6, 69 NRC 401 (2009)
the presiding officer in the high-level waste proceeding shall resolve disputes concerning adoption of the DOE environmental impact statement by using, to the extent possible, the criteria and procedures that are followed in ruling on motions to reopen; LBP-09-6, 69 NRC 393 (2009)
- 10 C.F.R. 2.326(a)
motions to reopen must be timely; CLI-09-7, 69 NRC 287 (2009)
motions to reopen must raise a significant safety or environmental issue; CLI-09-7, 69 NRC 288 (2009)
petitioner's "placeholder" motion does not eliminate the requirement to file a motion to reopen the record; CLI-09-5, 69 NRC 119 (2009)

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- 10 C.F.R. 2.326(a)(1)
an exceptionally grave issue may be considered in the discretion of the presiding officer, even if untimely presented; CLI-09-5, 69 NRC 124 (2009)
to reopen a closed record, movant must show that its motion is timely; CLI-09-5, 69 NRC 124 (2009)
- 10 C.F.R. 2.326(a)(2)
an exceptionally grave issue may be considered in the discretion of the presiding officer, if it addresses a significant safety or environmental issue; CLI-09-5, 69 NRC 124 (2009)
- 10 C.F.R. 2.326(a)(3)
a successful motion to reopen must establish that a materially different result would have been likely had the results of new evidence been before the board when the board made its original findings; CLI-09-7, 69 NRC 290 (2009)
an exceptionally grave issue may be considered in the discretion of the presiding officer, if a materially different result would be or would have been likely had the newly proffered evidence been considered initially; CLI-09-5, 69 NRC 124 (2009)
- 10 C.F.R. 2.326(b)
a motion to reopen must be accompanied by the factual and/or technical basis for the movant's claims, in affidavit form; CLI-09-5, 69 NRC 124 n.48 (2009)
bare assertions and speculation do not supply the requisite support for a motion to reopen; CLI-09-7, 69 NRC 287 (2009)
motions to reopen must be accompanied by affidavits of qualified experts presenting the factual and/or technical bases for the claim that there is a significant safety issue, together with evidence that satisfies admissibility standards; CLI-09-7, 69 NRC 287 (2009)
the reopening standards as well as the late intervention standards must be met when an entirely new issue is sought to be introduced after the closing of the record; CLI-09-5, 69 NRC 124 (2009)
- 10 C.F.R. 2.326(d)
the board is to consider the Staff's projected schedule for completion of its safety and environmental evaluations in developing the hearing schedule; LBP-09-3, 69 NRC 165 (2009)
where new material sought to be introduced in a motion to reopen does not deal with a matter previously in controversy, the person moving to reopen the record must also meet the standards for filing untimely contentions; CLI-09-5, 69 NRC 125 (2009)
- 10 C.F.R. 2.329(c)(1)
NRC rules of procedure authorize boards to hold prehearing conferences for the purposes of simplifying or clarifying the issues for hearing, after which a board might admit a revised contention; CLI-09-12, 69 NRC 553 (2009)
- 10 C.F.R. 2.331
a request for briefs on legal issues is one of the many tools available to a presiding officer generally in the conduct of a proceeding; CLI-09-14, 69 NRC 591 (2009)
- 10 C.F.R. 2.332
a request for briefs on legal issues is one of the many tools available to a presiding officer generally in the conduct of a proceeding; CLI-09-14, 69 NRC 591 (2009)
- 10 C.F.R. 2.333
a request for briefs on legal issues is one of the many tools available to a presiding officer generally in the conduct of a proceeding; CLI-09-14, 69 NRC 591 (2009)
- 10 C.F.R. 2.335
a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; CLI-09-7, 69 NRC 291 (2009); LBP-09-3, 69 NRC 152 (2009)
- 10 C.F.R. 2.335(a)
absent a showing of special circumstances, under 10 C.F.R. 2.335(b), waste confidence matters must be addressed through Commission rulemaking; LBP-09-4, 69 NRC 218 (2009)
NRC regulations may not be attacked in individual NRC adjudicatory proceedings, unless the Commission waives the rule at issue for a particular proceeding, or the rule is changed or suspended due to a rulemaking review; CLI-09-3, 69 NRC 75 (2009); CLI-09-10, 69 NRC 524 (2009); LBP-09-6, 69 NRC 389 (2009)

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- 10 C.F.R. 2.335(b)
absent a waiver, parties are prohibited from collaterally attacking NRC regulations in an adjudication; CLI-09-3, 69 NRC 75 (2009)
petitions for waiver or exception are granted on the sole ground that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation would not serve the purposes for which the rule or regulation was adopted; LBP-09-6, 69 NRC 389 n.80 (2009)
requests for rule waiver or exception must be accompanied by an affidavit that identifies with particularity the special circumstances alleged to justify the waiver or exception requested; LBP-09-6, 69 NRC 389 n.80 (2009)
this rule bars contentions that advocate more or less stringent requirements than the NRC rules impose, otherwise seek to litigate a generic determination that the Commission has established by rulemaking, or raise a matter that is or is about to become the subject of rulemaking; LBP-09-6, 69 NRC 389-90 (2009)
- 10 C.F.R. 2.336
NRC's mandatory disclosure rules for Subpart L proceedings provide meaningful access to information from adverse parties in the form of a system of mandatory disclosure; CLI-09-12, 69 NRC 573 (2009)
- 10 C.F.R. 2.336(a)(2)(i)
mandatory disclosures in lieu of discovery, which apply to Subpart L proceedings, are wide-reaching, requiring parties other than the NRC Staff to provide a copy or description of all documents and data compilations in the possession, custody, or control of the party that are relevant to the contentions; CLI-09-12, 69 NRC 573 (2009)
- 10 C.F.R. 2.336(a)(3)
the claim and identification of privileged materials must occur within the time provided for disclosing withheld materials; LBP-09-3, 69 NRC 165 n.22 (2009)
- 10 C.F.R. 2.336(b)
NRC Staff must make disclosures that include not only information relevant to the contentions, but all documents supporting the Staff's review of the application that is the subject of the proceeding; CLI-09-12, 69 NRC 573 n.175 (2009)
- 10 C.F.R. 2.336(b)(5)
the claim and identification of privileged materials must occur within the time provided for disclosing withheld materials; LBP-09-3, 69 NRC 165 n.22 (2009)
- 10 C.F.R. 2.336(e)(1)
boards may impose sanctions on parties who fail to comply with disclosure requirements, including dismissal of the relevant contention or of the application itself; CLI-09-12, 69 NRC 573 (2009)
- 10 C.F.R. 2.337(a)
all affidavits are expected to be relevant, material, and reliable; LBP-09-6, 69 NRC 402 (2009)
- 10 C.F.R. 2.337(f)
relative to individuals who provided affidavits in support of an organization's representational standing, the board used Google Earth to confirm the distance from the proposed reactor to the residence of the individual purportedly residing nearest to the facility; LBP-09-3, 69 NRC 150 n.3 (2009)
- 10 C.F.R. 2.341(b)
petitioners will have an opportunity to appeal a board's contention admissibility rulings at the end of the case; CLI-09-9, 69 NRC 365 (2009)
- 10 C.F.R. 2.341(b)(4)
grant of petitions for review is discretionary and five factors are weighed; CLI-09-7, 69 NRC 259 (2009)
- 10 C.F.R. 2.341(b)(4)(iv)
where a board asked questions pertinent to clarifying its understanding of the relevant, material issues in a proceeding, there is no prejudicial procedural error justifying review; CLI-09-7, 69 NRC 280 (2009)
- 10 C.F.R. 2.341(b)(4)(v)
the Commission has discretion to take review for any other consideration that the Commission may deem to be in the public interest; CLI-09-7, 69 NRC 263 (2009)
- 10 C.F.R. 2.341(f)
intervenor's appeal is rejected for failure to meet interlocutory review standards; CLI-09-7, 69 NRC 242 (2009)

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- the Commission will review a referred ruling only if it raises significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding; CLI-09-13, 69 NRC 577 (2009)
- 10 C.F.R. 2.341(f)(1)
the Commission will review referred rulings only if the referral raises significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding; CLI-09-3, 69 NRC 72 (2009)
- 10 C.F.R. 2.341(f)(2)
because petitioners were granted a hearing, their appeal is treated as a request for interlocutory review; CLI-09-9, 69 NRC 365 (2009)
petition for interlocutory review will be granted only if the party demonstrates that the issue for which the party seeks review threatens the party adversely affected by it with immediate and serious irreparable impact or the basic structure of the proceeding will be affected in a pervasive and unusual manner; CLI-09-6, 69 NRC 131, 132 (2009)
- 10 C.F.R. 2.341(f)(2)(ii)
interlocutory review may be granted if the challenged order affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-09-2, 69 NRC 61 (2009)
- 10 C.F.R. 2.346
whether the reopening standard is met requires a legal determination that is not within the scope of the Secretary's limited authority; CLI-09-5, 69 NRC 121 n.26 (2009)
- 10 C.F.R. 2.346(i)
the Secretary of the Commission has authority to refer a motion to the board for any action the board deems appropriate; CLI-09-5, 69 NRC 118 (2009)
- 10 C.F.R. 2.390
the scope of a board's review of Staff's denial of access to SUNSI does not extend to whether the information sought by the requesters is properly characterized as SUNSI; LBP-09-5, 69 NRC 310 n.5 (2009)
- 10 C.F.R. 2.700
a materials license amendment proceeding may be held under Subpart L but the provisions of Subpart G may be used in any other proceeding as ordered by the Commission; CLI-09-12, 69 NRC 572 (2009)
if there is any conflict between the provisions of Subpart G and those set forth in Subpart C of this part, the provisions of Subpart G control; LBP-09-1, 69 NRC 47 (2009)
rationale for presiding officer's recommendation on use of Subpart G procedures for materials license amendment proceeding is discussed; LBP-09-1, 69 NRC 47 (2009)
requirements for applying Subpart G to a particular proceeding are set out; CLI-09-7, 69 NRC 278 (2009)
Subpart G hearing procedures apply only to certain enumerated types of proceedings, not including materials license amendment proceedings, but including any other proceeding as ordered by the Commission; LBP-09-1, 69 NRC 47 (2009)
this rule explicitly applies to eyewitnesses, not expert witnesses; CLI-09-7, 69 NRC 279 (2009)
traditional cross-examination is allowed under certain circumstances defined in this section; CLI-09-7, 69 NRC 278 (2009)
- 10 C.F.R. 2.706(a)(8)
this section does not require appropriated funds to be used to provide special assistance just to intervenors; LBP-09-1, 69 NRC 44 n.136 (2009)
- 10 C.F.R. 2.711(e)
all affidavits are expected to be relevant, material, and reliable; LBP-09-6, 69 NRC 402 (2009)
- 10 C.F.R. 2.714(e)
if the presiding officer determines that any of the admitted contentions constitute pure issues of law, those contentions must be decided on the basis of briefs or oral argument according to a schedule determined by the presiding officer; LBP-09-6, 69 NRC 422 (2009)
- 10 C.F.R. 2.714a
interlocutory review of the presiding officer's decision will be granted where the decision either threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review, or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-09-9, 69 NRC 365 (2009)

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- 10 C.F.R. 2.730(f) (1973) (rescinded)
a licensing board referral of an order is unacceptable if it fails to satisfy the standards applicable to such referrals, including whether prompt appellate review is necessary to prevent detriment to the public interest or unusual delay or expense; CLI-09-6, 69 NRC 134 (2009)
- 10 C.F.R. 2.740a(h)
payments from the NRC to an intervenor's expert witness are not barred by section 502 of the Energy and Water Development Appropriations Act; LBP-09-1, 69 NRC 44 n.136 (2009)
- 10 C.F.R. 2.1001
"documentary material" is defined in this section; LBP-09-6, 69 NRC 383 (2009)
- 10 C.F.R. 2.1003
obligations and timetable for production of documentary material on the Licensing Support Network by petitioners are outlined in this section; LBP-09-6, 69 NRC 382 (2009)
- 10 C.F.R. 2.1003(e)
at the construction authorization stage of the proceeding, absent a credible factual challenge to the sufficiency of the production of documentary material, all that is now required are intervenors' monthly supplemental certifications; LBP-09-6, 69 NRC 442 (2009)
each party or potential party must continue to supplement the production of its documentary material on the Licensing Support Network; LBP-09-6, 69 NRC 383 (2009)
- 10 C.F.R. 2.1009(a)
each party or potential party shall establish specified procedures for implementing its Licensing Support Network production; LBP-09-6, 69 NRC 383 (2009)
- 10 C.F.R. 2.1009(b)
anyone who wishes to intervene as a party in the high-level waste proceeding must establish that it has standing, be able to demonstrate substantial and timely Licensing Support Network compliance, and proffer at least one admissible contention; LBP-09-6, 69 NRC 381 (2009)
at the construction authorization stage of the proceeding, absent a credible factual challenge to the sufficiency of the production of documentary material, all that is now required are intervenors' and monthly supplemental certifications; LBP-09-6, 69 NRC 442 (2009)
certification of LSN compliance should be a straightforward statement; LBP-09-6, 69 NRC 386-87 (2009)
each party or potential party shall certify to the pre-license application presiding officer board that the party or potential party has complied with the implementation procedures of section 2.1009(a)(2) and that to the best of his or her knowledge, the documentary material specified in section 2.1003 has been identified and made electronically available; LBP-09-6, 69 NRC 383 (2009)
- 10 C.F.R. 2.1012(b)(1)
an affirmative demonstration of compliance with the Licensing Support Network requirements is not required in an intervention petition; LBP-09-6, 69 NRC 384, 449 (2009)
petitioner may not be granted party status in the high-level waste proceeding if it cannot demonstrate substantial and timely compliance with the requirements in 10 C.F.R. 2.1003 concerning the availability of documentary material on the Licensing Support Network; LBP-09-6, 69 NRC 382, 383, 450 (2009)
- 10 C.F.R. 2.1012(b)(2)
if a petitioner is found not to be in substantial and timely compliance with the Licensing Support Network requirements, that petitioner may request party status upon a subsequent showing of compliance, although any grant of a request is conditioned on accepting the status of the proceeding at the time of admission; LBP-09-6, 69 NRC 383, 448 (2009)
- 10 C.F.R. 2.1012(c)
an affirmative demonstration of compliance with the Licensing Support Network requirements is not required in an intervention petition; LBP-09-6, 69 NRC 384 (2009)
in reviewing an intervention petitioner's compliance with document filing requirements, boards also must find that a petitioner has complied with all applicable orders of the pre-license application presiding officer board; LBP-09-6, 69 NRC 383 (2009)
- 10 C.F.R. 2.1025
presiding officers have authority to dispose of certain issues on the pleadings; CLI-09-14, 69 NRC 591 n.65 (2009)

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- 10 C.F.R. 2.1200
a materials license amendment proceeding may be held under Subpart L but the provisions of Subpart G may be used in any other proceeding as ordered by the Commission; CLI-09-12, 69 NRC 572 (2009)
- 10 C.F.R. 2.1202(a)
the rules of practice governing a license amendment proceeding expressly contemplate prompt Staff action on an application, notwithstanding the pendency of any adjudicatory proceeding, subject to certain identified exceptions; CLI-09-5, 69 NRC 122 (2009)
- 10 C.F.R. 2.1203
NRC Staff must maintain a hearing file; CLI-09-12, 69 NRC 573 n.175 (2009)
- 10 C.F.R. 2.1204(b)
a party may file a motion with the presiding officer to permit cross-examination by the parties on particular admitted contentions or issues; CLI-09-12, 69 NRC 572 n.173 (2009)
- 10 C.F.R. 2.1204(b)(3)
cross-examination by the parties is allowed in Subpart L proceedings only when the presiding officer decides that such cross-examination is necessary to ensure an adequate record for decision; CLI-09-7, 69 NRC 248 (2009); CLI-09-12, 69 NRC 572 n.173 (2009)
- 10 C.F.R. 2.1207
in accordance with Subpart L procedures, witness panels may be questioned in areas that, in the board's judgment, require additional clarification, and parties may be asked to provide proposed written questions both before and during the hearing in order to assist the board in its questioning; CLI-09-7, 69 NRC 248 (2009)
- 10 C.F.R. 2.1207(a)(3)
parties have an opportunity to propose questions that the presiding officer may propound to persons sponsoring testimony; CLI-09-12, 69 NRC 572 n.173 (2009)
- 10 C.F.R. 2.1209
failure of parties to raise matters in their proposed findings seemingly waives these items as grounds for a challenge to the final environmental impact statement; LBP-09-7, 69 NRC 651 n.12 (2009)
- 10 C.F.R. 2.1210(c)(3)
this section expressly provides for the circumstance in which a licensing action is taken prior to completion of a hearing; CLI-09-5, 69 NRC 122 n.29 (2009)
- 10 C.F.R. Part 9, Subpart A
the scope of a board's review of Staff's denial of access to SUNSI does not extend to whether the information sought by the requesters is properly characterized as SUNSI; LBP-09-5, 69 NRC 310 n.5 (2009)
- 10 C.F.R. Part 20
the consistency of the generic guidance in NUREG-1757 that applies the requirements governing restricted release with the text and intent of the regulations is discussed; CLI-09-1, 69 NRC 6 (2009)
until decommissioning is completed, a licensee must limit actions to those related to decommissioning and control access to restricted areas until they are suitable for release; CLI-09-1, 69 NRC 6 (2009)
whether a site is suitable for unrestricted or restricted release, the license is terminated upon the completion of decommissioning; CLI-09-1, 69 NRC 7 (2009)
- 10 C.F.R. 20.1003
"As Low As is Reasonably Achievable" is defined; CLI-09-14, 69 NRC 595 n.88 (2009)
- 10 C.F.R. 20.1101(b)
licensees must use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses that are as low as reasonably achievable; CLI-09-14, 69 NRC 598 n.107 (2009)
- 10 C.F.R. 20.1401(c)
after completion of decommissioning, neither licensee nor the NRC retains any continuing obligation or jurisdiction, respectively, with respect to a site, unless new information shows that the Part 20 criteria were not met and the residual radioactivity remaining on the site could result in a significant threat to public health and safety; CLI-09-1, 69 NRC 7 (2009)
- 10 C.F.R. 20.1403
a site will be considered for restricted release if further reductions in residual radioactivity necessary to comply with the provisions of section 20.1402 would result in net public or environmental harm or

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- need not be made because residual levels associated with the restricted conditions are as low as reasonably achievable; CLI-09-1, 69 NRC 6, 8 (2009)
- 10 C.F.R. 20.1403(a)
the unavailability of funding for decommissioning adequate to achieve unrestricted release of a site is not one of the conditions specified in this section; CLI-09-1, 69 NRC 9 (2009)
- 10 C.F.R. 20.1404
a license is terminated even if the licensee decommissions the site in accordance with alternative decommissioning criteria pursuant to this section; CLI-09-1, 69 NRC 8 (2009)
- 10 C.F.R. 20.2001
a power reactor licensee could transfer low-level radioactive waste to another licensee that is licensed to accept and treat waste prior to disposal; LBP-09-4, 69 NRC 227 (2009)
- 10 C.F.R. Part 30, Appendix A
neither market capitalization nor share price are variables to be used in the financial test for decommissioning funding; LBP-09-4, 69 NRC 197 (2009)
- 10 C.F.R. 40.9(a)
information provided to the Commission by an applicant or licensee must be complete and accurate in all material respects; CLI-09-9, 69 NRC 359 n.146 (2009); LBP-09-1, 69 NRC 32 (2009)
- 10 C.F.R. 40.32
this section concerns the requirements for issuance of a license relating to source material; LBP-09-1, 69 NRC 29 (2009)
- 10 C.F.R. 40.32(d)
materials license regulations contain no express prohibition against foreign ownership, but require the Staff to make a finding that the issuance of the license will not be inimical to the common defense and security; CLI-09-9, 69 NRC 360 (2009); CLI-09-12, 69 NRC 571 (2009)
whether foreign ownership of applicant renders issuance of a license inimical to the common defense and security or to the health and safety of the public is discussed; LBP-09-1, 69 NRC 29 n.72 (2009)
- 10 C.F.R. 40.38
neither a uranium enrichment facility nor a nuclear power plant may be owned, controlled, or dominated by a foreign entity; CLI-09-9, 69 NRC 359-360 n.151 (2009)
the foreign ownership provisions of this section do not apply to in situ leach recovery licensees; CLI-09-12, 69 NRC 568 n.146 (2009)
this section was promulgated to implement the USEC Privatization Act which amended the Atomic Energy Act of 1954, and applies exclusively to uranium enrichment facilities; LBP-09-1, 69 NRC 29 n.71 (2009)
- 10 C.F.R. 40.42
the consistency of the generic guidance in NUREG-1757 that applies the requirements governing license termination with the text and intent of the regulations is discussed; CLI-09-1, 69 NRC 6 (2009)
the purpose of this rule is to reduce the potential risk to public health and the environment from radioactive material remaining for long periods of time at materials facilities after licensed activities have ceased; CLI-09-1, 69 NRC 8 (2009)
- 10 C.F.R. 40.42(c)
with respect to possession, a Part 40 license continues in effect after expiration until decommissioning is completed; CLI-09-1, 69 NRC 6 (2009)
- 10 C.F.R. 40.42(d)
this section is written in terms of releasing buildings or areas in accordance with NRC criteria; CLI-09-1, 69 NRC 9 (2009)
- 10 C.F.R. 40.45
in a materials license amendment or renewal proceeding the criteria set forth in section 40.32 are to be applied in considering an application; LBP-09-1, 69 NRC 29 (2009)
- 10 C.F.R. Part 50
NRC regulations have long contemplated issuance of a license amendment notwithstanding the pendency of an adjudicatory hearing, provided that the Staff makes certain required findings; CLI-09-5, 69 NRC 122 n.29 (2009)

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- to provide decommissioning funding assurance, applicant must submit with its application a decommissioning report and certification that provides assurances that decommissioning funds are available to decommission the facility; LBP-09-4, 69 NRC 198 (2009)
- 10 C.F.R. 50.12(a)
if applicant later decides not to reference a certified design, and instead proceeds with a site-specific design, any admissible issues would have to be addressed in the licensing adjudication; LBP-09-2, 69 NRC 100 (2009)
- 10 C.F.R. 50.33(d)(3)
corporate applicants must provide place of incorporation, citizenship of directors and principal officers, and whether owned, controlled, or dominated by a foreign corporation in their application; LBP-09-1, 69 NRC 33 (2009)
- 10 C.F.R. 50.33(g)
the plume exposure pathway emergency planning zone for nuclear power reactors shall consist of an area about 10 miles in radius, and the ingestion pathway emergency planning zone shall consist of an area about 50 miles in radius; LBP-09-4, 69 NRC 182 n.31 (2009)
- 10 C.F.R. 50.33(k)
a combined license application is required to have a decommissioning report, but certification of financial assurance is not required until 30 days after the Commission publishes notice pursuant to section 52.103(a); LBP-09-4, 69 NRC 197 (2009)
- 10 C.F.R. 50.33(k)(1)
to provide decommissioning funding assurance for a Part 50 license, applicant must submit with its application a decommissioning report and certification that provides assurances that decommissioning funds are available to decommission the facility; LBP-09-4, 69 NRC 198 (2009)
- 10 C.F.R. 50.34(a)(4)
there is a fundamental distinction between design basis events, which are accidents that must be considered in the design of the plant, and design basis threats, which are accidents that must be considered in the design of plant security features; LBP-09-2, 69 NRC 101 (2009)
- 10 C.F.R. 50.38
any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license; CLI-09-9, 69 NRC 359-360 n.151 (2009); LBP-09-4, 69 NRC 192 (2009)
- 10 C.F.R. 50.55a
petitioner is prohibited from challenging the adequacy of applicant's commitment to a program that incorporates the requirements of an ASME Code that is specifically referenced by this section; CLI-09-7, 69 NRC 274 n.218 (2009)
- 10 C.F.R. 50.75(b)(1)
an estimate of decommissioning costs must be contained in the decommissioning report that is part of the combined license application; LBP-09-4, 69 NRC 199 (2009)
combined license applicants must submit a decommissioning report that contains a certification that funding assurance will be provided no later than 30 days after the NRC publishes notice in the *Federal Register* of its scheduled date for initial fuel loading; LBP-09-4, 69 NRC 199 (2009)
- 10 C.F.R. 50.75(b)(3)
the decommissioning report must specify the method by which assurance of decommissioning funding will be provided; LBP-09-4, 69 NRC 199 (2009)
- 10 C.F.R. 50.75(c)(1)
the amount of decommissioning funds that must be available is calculated by the applicant, using the table found in this section; LBP-09-4, 69 NRC 198 (2009)
- 10 C.F.R. 50.75(c)(2)
licensees are required to annually adjust the amount of decommissioning funding assurance; LBP-09-4, 69 NRC 198 (2009)
- 10 C.F.R. 50.75(e)
by the time the Post-Shutdown Decommissioning Activities Report is filed, licensees should either have funds plus an estimate of expected earnings on a fund, or a guarantee, insurance, or other funding assurance method for the total estimated cost; LBP-09-4, 69 NRC 198 (2009)

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- 10 C.F.R. 50.75(e)(1)(i)
applicant may prepay the entire decommissioning amount; LBP-09-4, 69 NRC 196 n.94 (2009)
“prepayment” of decommissioning funding is defined; LBP-09-4, 69 NRC 196 n.94 (2009)
- 10 C.F.R. 50.75(e)(1)(ii)
applicant may use a sinking fund for decommissioning funding; LBP-09-4, 69 NRC 196 n.93 (2009)
“external sinking fund” is defined; LBP-09-4, 69 NRC 196 n.93 (2009)
- 10 C.F.R. 50.75(e)(1)(iii)(B)
a parent company guarantee of funds for decommissioning costs based on a financial test may be used;
LBP-09-4, 69 NRC 196 n.91 (2009)
financial tests showing that the method of assurance is financially possible are required when the
decommissioning funding method includes a parent company guarantee; LBP-09-4, 69 NRC 200 (2009)
- 10 C.F.R. 50.75(f)
five years before permanent cessation of operations, licensees must file a preliminary decommissioning
cost estimate that includes plans for adjusting levels of funds as needed; LBP-09-4, 69 NRC 198 (2009)
licensees are required to annually report on the status of decommissioning funding; LBP-09-4, 69 NRC
198 (2009)
- 10 C.F.R. 50.91(a)(4)
Staff is permitted to issue an amendment to a reactor operating license notwithstanding the pendency of
an adjudicatory hearing if it determines that the licensing action involves no significant hazards
consideration; CLI-09-5, 69 NRC 122 n.29 (2009)
- 10 C.F.R. Part 50, Appendix I, § I.I.D
liquid and gaseous waste systems at a nuclear power plant have the potential to affect populations at
distances up to 50 miles from the plant; LBP-09-4, 69 NRC 182 n.31 (2009)
- 10 C.F.R. 51.14(b)
in implementing the National Environmental Policy Act, NRC uses the definitions provided in Council on
Environmental Quality regulations; LBP-09-7, 69 NRC 719 (2009)
the National Environmental Policy Act requires federal agencies to examine, analyze, and disclose not
only direct effects, but also indirect effects that are later in time or farther removed in distance, but are
still reasonably foreseeable; LBP-09-6, 69 NRC 404 (2009)
- 10 C.F.R. 51.20(b)(1)
NRC Staff must prepare an environmental impact statement in connection with the issuance of an early
site permit; LBP-09-7, 69 NRC 633 (2009)
- 10 C.F.R. 51.45(b)
the required content of applicant’s environmental report is described; LBP-09-7, 69 NRC 632 (2009)
- 10 C.F.R. 51.45(b)(1)
the environmental report prepared for a combined license application must describe the proposed action
and discuss the impact of the proposed action on the environment, any adverse environmental effects
that cannot be avoided, and any irreversible and irretrievable commitments of resources that would be
involved in the proposed action should it be implemented; LBP-09-4, 69 NRC 225 (2009)
- 10 C.F.R. 51.45(b)(2)
the environmental report prepared for a COL application must describe the proposed action and discuss
the impact of the proposed action on the environment, any adverse environmental effects that cannot be
avoided, and any irreversible and irretrievable commitments of resources that would be involved in the
proposed action should it be implemented; LBP-09-4, 69 NRC 225, 229 (2009)
- 10 C.F.R. 51.45(b)(3)
NRC policy is to defer to applicant’s stated purpose to produce baseload power, as long as reasonable
alternative means of achieving that specific goal are examined; LBP-09-2, 69 NRC 108 (2009)
to the extent practicable, the environmental impacts of the proposal and the alternatives should be
presented in comparative form; LBP-09-7, 69 NRC 691 n.34 (2009)
- 10 C.F.R. 51.45(b)(5)
the environmental report prepared for a combined license application must describe the proposed action
and discuss the impact of the proposed action on the environment, any adverse environmental effects
that cannot be avoided, and any irreversible and irretrievable commitments of resources that would be
involved in the proposed action should it be implemented; LBP-09-4, 69 NRC 225 (2009)

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- 10 C.F.R. 51.45(e)
information submitted in the environmental report should not be confined to information supporting the proposed action but should also include adverse information; LBP-09-4, 69 NRC 226 (2009)
- 10 C.F.R. 51.50(b)
applicant for an early site permit must submit with its application an environmental report; LBP-09-7, 69 NRC 632 (2009)
- 10 C.F.R. 51.51(c)(2)
applicant for a combined license that elects to reference a certified design is permitted to incorporate by reference the environmental report prepared in connection with the certified design, and that is, in turn, required pursuant to consider severe accident mitigation design alternatives; LBP-09-2, 69 NRC 102 (2009)
- 10 C.F.R. 51.53(c)(3)(i)
because Category 1 issues already have been reviewed on a generic basis for all plants, an applicant's environmental report need not provide a site-specific analysis of these issues; CLI-09-10, 69 NRC 523 (2009)
- 10 C.F.R. 51.53(c)(3)(ii)
applicants must provide a plant-specific analysis of all Category 2 issues; CLI-09-10, 69 NRC 523 (2009)
- 10 C.F.R. 51.55(a)
applicant for a combined license that elects to reference a certified design is permitted to incorporate by reference the environmental report prepared in connection with the certified design, and that is, in turn, required to consider severe accident mitigation design alternatives; LBP-09-2, 69 NRC 102 (2009)
- 10 C.F.R. 51.70
Staff must first prepare a draft environmental impact statement, which addresses, among other topics, the matters specified in section 51.45; LBP-09-7, 69 NRC 633 (2009)
- 10 C.F.R. 51.71(a)
Staff must first prepare a draft environmental impact statement, which addresses, among other topics, the matters specified in section 51.45; LBP-09-7, 69 NRC 633 (2009)
- 10 C.F.R. 51.71(b)
though Staff's draft environmental impact statement may rely in part on the applicant's environmental report, Staff must independently evaluate and be responsible for the reliability of all information used in the DEIS; LBP-09-7, 69 NRC 633 (2009)
- 10 C.F.R. 51.73
the draft environmental impact statement is distributed for public comment and, based on the comments received, a review of information provided by the applicant, and supplemental independent information and analysis, the Staff prepares and issues a final environmental impact statement; LBP-09-7, 69 NRC 633 (2009)
- 10 C.F.R. 51.91
the draft environmental impact statement is distributed for public comment and, based on the comments received, a review of information provided by the applicant, and supplemental independent information and analysis, the Staff prepares and issues a final environmental impact statement; LBP-09-7, 69 NRC 633 (2009)
- 10 C.F.R. 51.109(a)(1)
NRC Staff is required to present its position on whether it is practicable to adopt DOE's environmental impact statement for Yucca Mountain without supplementation; LBP-09-6, 69 NRC 393 (2009)
- 10 C.F.R. 51.109(a)(2)
affidavits supporting NEPA contentions must set forth factual and/or technical bases for the claim that it is not practicable to adopt the DOE environmental impact statement; LBP-09-6, 69 NRC 400 (2009)
each environmental contention in the high-level waste proceeding must be supported by one or more affidavits which set forth factual and/or technical bases; LBP-09-6, 69 NRC 392 (2009)
each factual NEPA contention must be accompanied by one or more affidavits, but a purely legal issue contention cannot logically require affidavit support, as by definition such a contention alleges no facts that require support; CLI-09-14, 69 NRC 590 (2009); LBP-09-6, 69 NRC 400 (2009)
parties to the high-level waste proceeding are to be afforded the opportunity to submit contentions asserting that it is not practicable to adopt the DOE environmental impact statement; LBP-09-6, 69 NRC 393 (2009)

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- the presiding officer in the high-level waste proceeding shall resolve disputes concerning adoption of the DOE environmental impact statement by using, to the extent possible, the criteria and procedures in 10 C.F.R. 2.326 that are followed in ruling on motions to reopen; LBP-09-6, 69 NRC 393 (2009)
- 10 C.F.R. 51.109(c)
criteria governing the practicability of adoption of DOE's environmental impact statement for the high-level waste repository are discussed; LBP-09-6, 69 NRC 393-94 (2009)
- 10 C.F.R. 51.109(c)(2)
affidavits supporting environmental contentions in the high-level waste proceeding must set forth significant and substantial grounds for the claim that it is not practicable to adopt the environmental impact statement for the proposed repository prepared by DOE; LBP-09-6, 69 NRC 392 (2009)
the only relevant test for a claim that it is not practicable to adopt the DOE environmental impact statement is whether the supporting affidavit presents significant and substantial new information or new considerations sufficient to render such EIS inadequate; LBP-09-6, 69 NRC 400 (2009)
- 10 C.F.R. Part 51, Appendix A, § 1(b)
an agency may rely on an environmental impact statement prepared by another federal agency if such reliance will aid in the presentation of issues, eliminate repetition, or reduce the length of an EIS; LBP-09-7, 69 NRC 634 (2009)
- 10 C.F.R. Part 51, Appendix B, Table B-1 n.3
when the Staff makes its conclusions in the draft and final environmental impact statements regarding the environmental impacts of a proposed action or alternative actions, the Staff uses as guidance a standard scheme to categorize or quantify the impacts; LBP-09-7, 69 NRC 633 (2009) 10 C.F.R. Part 52
with respect to combined licenses, interested persons may request a hearing as to the adequacy of construction after issuance of a combined license; CLI-09-2, 69 NRC 61 n.20 (2009)
- 10 C.F.R. 52.16
corporate applicants must provide place of incorporation, citizenship of directors and principal officers, and whether owned, controlled, or dominated by a foreign corporation in their application; LBP-09-1, 69 NRC 33 (2009)
- 10 C.F.R. 52.39(a)
an early site permit allows an applicant to resolve key site-related environmental, safety, and emergency planning issues before choosing the particular facility design for, or deciding to build such a facility on, a designated site, essentially allowing the applicant to "bank" a possible site for the future construction of a specified number of new nuclear facilities; LBP-09-3, 69 NRC 147 (2009)
- 10 C.F.R. 52.39(c)
intervenor are not necessarily foreclosed from raising their concerns about the environmental impacts of dredging if and when a decision is made later to dredge a federal navigation channel; LBP-09-7, 69 NRC 730 (2009)
- 10 C.F.R. 52.55(c)
an attack on the design certification process that is being conducted by rulemaking is outside the scope of a combined license proceeding; LBP-09-2, 69 NRC 97 n.35 (2009)
applicant for a combined license is expressly authorized by NRC's regulations to incorporate by reference a certified reactor design in its application; LBP-09-2, 69 NRC 97 n.37 (2009)
applicant for a construction permit or a combined license may, at its own risk, reference in its application a design for which a design certification application has been docketed but not granted; CLI-09-8, 69 NRC 322, 324 (2009); LBP-09-3, 69 NRC 158 (2009)
applicant is permitted to incorporate by reference the certified reactor design into the combined license application, but changes proposed to the certified design are to be addressed in the design certification rulemaking and are not within the scope of the COL proceeding; LBP-09-2, 69 NRC 100 (2009)
argument that combined license application hearing notice should be delayed until completion of certified design rulemaking fails to recognize the Commission direction that a contention raised in a COL hearing challenging information in a design certification rulemaking, if otherwise admissible, should be referred to the Staff for consideration in the rulemaking, and held in abeyance by the licensing board pending outcome of the rulemaking; LBP-09-3, 69 NRC 157 n.9 (2009)
generic issues are to be resolved as part of the design certification rulemaking process, and any concerns related to those issues must be addressed in the rulemaking and not within the scope of a COL proceeding; LBP-09-8, 69 NRC 745 (2009)

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- incorporation by reference is consistent with NRC rules when an applicant chooses to reference a standard design; CLI-09-8, 69 NRC 326 n.38 (2009)
- the revision process for reactor design is contemplated by NRC regulations and is currently being carried out through the design certification rulemaking; LBP-09-2, 69 NRC 98 (2009)
- 10 C.F.R. 52.63(b)(1)
if applicant later decides not to reference a certified design, and instead proceeds with a site-specific design, any admissible issues would have to be addressed in the licensing adjudication; LBP-09-2, 69 NRC 100 (2009)
- 10 C.F.R. 52.63(b)(1), (2)
once a final design is certified, each COLA applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom; LBP-09-2, 69 NRC 100 (2009)
- 10 C.F.R. 52.73(a)
an attack on the design certification process that is being conducted by rulemaking is outside the scope of a combined license proceeding; LBP-09-2, 69 NRC 97 n.35 (2009)
applicant for a combined license is expressly authorized by NRC's regulations to incorporate by reference a certified reactor design in its application; CLI-09-8, 69 NRC 326 n.38 (2009); LBP-09-2, 69 NRC 97 n.37 (2009); LBP-09-3, 69 NRC 146, 156 (2009); LBP-09-8, 69 NRC 739 n.13 (2009)
- 10 C.F.R. 52.79(d)(1)
applicant for a combined license is expressly authorized by NRC's regulations to incorporate by reference a certified reactor design in its application; LBP-09-2, 69 NRC 97 n.37 (2009)
- 10 C.F.R. 52.83(a)
if a certified standard design is referenced in a combined license application, in the context of an adjudicatory challenge to the COLA, and absent a petition under 10 C.F.R. 2.335 seeking a waiver, the Commission will treat the CSD as resolving all matters that could have been raised in the design certification rulemaking; LBP-09-3, 69 NRC 147 (2009)
- 10 C.F.R. 52.98(f)
if applicant later decides not to reference a certified design, and instead proceeds with a site-specific design, any admissible issues would have to be addressed in the licensing adjudication; LBP-09-2, 69 NRC 100 (2009)
- 10 C.F.R. 52.103
with respect to combined licenses, interested persons may request a hearing as to the adequacy of construction after issuance of a combined license; CLI-09-2, 69 NRC 61 n.20 (2009)
- 10 C.F.R. 52.103(a)
combined license applicants must submit a decommissioning report that contains a certification that funding assurance will be provided no later than 30 days after the NRC publishes notice in the *Federal Register* of its scheduled date for initial fuel loading; LBP-09-4, 69 NRC 199 n.111 (2009)
- 10 C.F.R. Part 52, Appendix D
applicants seeking to construct and operate a plant based on the AP1000 design can do so by referencing the design control document; LBP-09-3, 69 NRC 156 (2009)
- 10 C.F.R. Part 52, Appendix D, § ILC
applicant will have to demonstrate that the site-specific parameters are bounded by the parameters developed for the certified reactor design; LBP-09-2, 69 NRC 100 (2009)
- 10 C.F.R. Part 52, Appendix D, § IV
once a final design is certified, each COLA applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom; LBP-09-2, 69 NRC 100 (2009)
- 10 C.F.R. Part 52, Appendix D, § VI.B.1
matters relating to all nuclear safety issues with certain delineated exceptions are deemed resolved by the design certification for the AP1000; LBP-09-2, 69 NRC 98 (2009)
- 10 C.F.R. Part 52, Appendix D, § VI.B.7
applicant will have to demonstrate that the site-specific parameters are bounded by the parameters developed for the certified reactor design; LBP-09-2, 69 NRC 100 (2009)
the Commission considers all environmental issues concerning severe accident mitigation design alternatives associated with the information in NRC's environmental analysis for the AP1000 design to

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- be resolved within the meaning of 10 C.F.R. 52.63(a)(5) in subsequent proceedings for issuance of a combined license; LBP-09-2, 69 NRC 104 n.70 (2009)
- the Commission deems all environmental issues associated with severe accident mitigation design alternatives developed in connection with the certified design to be resolved and to provide adequate protection of the public health and safety in each case where a site-specific evaluation demonstrates the particular plant is bounded by the generic design certification parameters; LBP-09-2, 69 NRC 98, 99 n.43 (2009)
- 10 C.F.R. Part 52, Appendix D, § VIII
- if applicant later decides not to reference a certified design, and instead proceeds with a site-specific design, any admissible issues would have to be addressed in the licensing adjudication; LBP-09-2, 69 NRC 100 (2009)
- once a final design is certified, each combined license applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom; LBP-09-2, 69 NRC 100 (2009)
- 10 C.F.R. 54.21
- licensee must establish an aging management program that provides reasonable assurance that the drywell shell will continue to perform its intended function consistent with the current licensing basis during the period of extended operation; CLI-09-7, 69 NRC 263 (2009)
- 10 C.F.R. 54.29
- licensee must establish an aging management program that provides reasonable assurance that the drywell shell will continue to perform its intended function consistent with the current licensing basis during the period of extended operation; CLI-09-7, 69 NRC 263 (2009)
- 10 C.F.R. 54.29(a)
- a renewed license may be issued if the Commission finds 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; CLI-09-7, 69 NRC 270 n.196 (2009)
- 10 C.F.R. 54.30(b)
- licensee's compliance with the obligation to take measures under its current license is not within the scope of the license renewal review; CLI-09-7, 69 NRC 270 n.196 (2009)
- 10 C.F.R. 61.1(a)
- Part 61 applies only to land disposal facilities that receive waste from others, not to onsite facilities where the licensee intends to store its own low-level radioactive waste; CLI-09-3, 69 NRC 73 (2009)
- 10 C.F.R. 63.2
- "event sequence" is defined; CLI-09-14, 69 NRC 597 n.105 (2009)
- 10 C.F.R. 63.31
- safety findings are to be made on review and consideration of an application; CLI-09-14, 69 NRC 602 (2009)
- the Commission may authorize construction of the proposed repository if the application provides a reasonable assurance of preclosure safety and a reasonable expectation of postclosure safety; LBP-09-6, 69 NRC 418 (2009)
- 10 C.F.R. 63.31(a)(1) and (2)
- the character or integrity of an applicant is a proper consideration in a licensing proceeding; LBP-09-6, 69 NRC 458 (2009)
- 10 C.F.R. 63.42(d)
- the Commission decision approving the first construction authorization for the high-level waste repository application shall prohibit the emplacement in the first repository of a quantity of spent fuel containing in excess of 70,000 metric tons of heavy metal or a quantity of solidified high-level radioactive waste resulting from the reprocessing of such a quantity of spent fuel until such time as a second repository is in operation; CLI-09-14, 69 NRC 592 n.71 (2009)
- 10 C.F.R. 63.101
- the performance assessment for the high-level waste repository must meet a number of very specific requirements; LBP-09-6, 69 NRC 414 (2009)
- 10 C.F.R. 63.102
- the performance assessment for the high-level waste repository must meet a number of very specific requirements; LBP-09-6, 69 NRC 414 (2009)

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- 10 C.F.R. 63.102(j)
compliance with limits on radiological exposures, over necessarily long time periods, requires a performance assessment; LBP-09-6, 69 NRC 413 (2009)
performance assessment is defined as a systematic analysis that quantitatively estimates radiological exposures; LBP-09-6, 69 NRC 415 (2009)
- 10 C.F.R. 63.111(a)(1)
the geologic repository operations area must meet the requirements of 10 C.F.R. Part 20; CLI-09-14, 69 NRC 595 n.93 (2009)
- 10 C.F.R. 63.111(c)
a preclosure safety analysis must be performed for the high-level waste repository and it must demonstrate, among other things, that the requirements of section 63.111(a) are met; CLI-09-14, 69 NRC 595 n.93 (2009)
the preclosure safety analysis for the high-level waste repository must demonstrate that in the event of Category 1 or Category 2 event sequences, prescribed dose limits will be met; CLI-09-14, 69 NRC 597 n.105 (2009)
- 10 C.F.R. 63.113
the performance assessment for the high-level waste repository must meet a number of very specific requirements; LBP-09-6, 69 NRC 413 (2009)
- 10 C.F.R. 63.114
the performance assessment for the high-level waste repository must meet a number of very specific requirements; LBP-09-6, 69 NRC 413 (2009)
- 10 C.F.R. 63.114(c)
any performance assessment used to demonstrate compliance with 10 C.F.R. 63.113 must consider alternative conceptual models; LBP-09-6, 69 NRC 415 (2009)
- 10 C.F.R. 63.304
characteristics of the reasonable expectation standard are discussed; LBP-09-6, 69 NRC 418-20 (2009)
- 10 C.F.R. 63.305
the performance assessment for the high-level waste repository must meet a number of very specific requirements; LBP-09-6, 69 NRC 414 (2009)
- 10 C.F.R. 70.23
applicant is not required to “request” a completion finding, or call for a single action, such as an inspection, on the part of the Staff that would serve as a discrete starting point for revising a contention; CLI-09-2, 69 NRC 61 n.20 (2009)
- 10 C.F.R. 70.23(a)(7), (b)
NRC regulations contemplate approval of construction and approval for operation of a fuel fabrication facility; CLI-09-2, 69 NRC 59 (2009)
- 10 C.F.R. 70.23(a)(8)
construction of the principal structures, systems, and components approved in the construction authorization proceeding must be completed in accordance with the application; CLI-09-2, 69 NRC 58 (2009)
NRC regulations contemplate approval of construction and approval for operation of a fuel fabrication facility; CLI-09-2, 69 NRC 59 (2009)
- 10 C.F.R. 73.1
there is a fundamental distinction between design basis events, which are accidents that must be considered in the design of the plant, and design basis threats, which are accidents that must be considered in the design of plant security features; LBP-09-2, 69 NRC 101 (2009)
- 10 C.F.R. 73.57(d)(3)(ii)
the fee for access to safeguards information is used by NRC to pay the costs it incurs in determining whether the individual should be granted access to SGI; CLI-09-4, 69 NRC 82 (2009)
- 10 C.F.R. 76.33(a)(2)
corporate applicants must provide place of incorporation, citizenship of directors and principal officers, and whether owned, controlled, or dominated by a foreign corporation in their application; LBP-09-1, 69 NRC 33 (2009)

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- 10 C.F.R. 110.9(b)
before source material can be exported from the United States, the NRC must grant an export license;
CLI-09-12, 69 NRC 570 (2009)
- 10 C.F.R. 110.82
an export license application carries with it an opportunity to seek to intervene and request a hearing;
CLI-09-9, 69 NRC 361 (2009); CLI-09-12, 69 NRC 570 (2009)
- 10 C.F.R. 110.84(a)(1), (2)
discretionary standing involves the Commission deciding that a hearing would be in the public interest
and/or that it would assist the Commission in making the statutory determinations required by the
Atomic Energy Act; LBP-09-1, 69 NRC 39 (2009)
- 36 C.F.R. 800.3(c)
where an action is going to take place on tribal lands, an agency must consult with the Tribal Historic
Preservation Officer if one has been designated, to assume the duties normally performed by the State
Historic Preservation Officer on tribal lands; CLI-09-9, 69 NRC 348 (2009); CLI-09-12, 69 NRC 566
(2009)
- 36 C.F.R. 800.4(b), (c)(1), (d)(1)
the National Historic Preservation Act requires the Staff to consult with Indian tribes concerning certain
actions that may affect them; CLI-09-12, 69 NRC 565 (2009)
- 36 C.F.R. 800.4(f)(2)
an agency must make a reasonable and good-faith effort to identify any Indian tribes that might attach
religious and cultural significance to historic properties in the area of potential effects and invite them
to be consulting parties; CLI-09-9, 69 NRC 349 (2009); CLI-09-12, 69 NRC 566 (2009)
- 36 C.F.R. 800.16(y)
federal "undertakings" are defined as any project, activity, or program funded in whole or in part under
the direct or indirect jurisdiction of a federal agency, including those requiring a federal permit, license,
or approval; CLI-09-9, 69 NRC 348 n.89 (2009)
the National Historic Preservation Act regulations apply to federal undertakings,; CLI-09-12, 69 NRC 566
n.137 (2009)
- 40 C.F.R. Part 1500
Council on Environmental Quality regulations are not binding on the NRC because the agency has not
expressly adopted them, but they are entitled to considerable deference; LBP-09-7, 69 NRC 631 (2009)
- 40 C.F.R. 1502.16
an environmental impact statement must address both direct and indirect effects of an action; LBP-09-7,
69 NRC 632 (2009)
- 40 C.F.R. 1502.22
any agency should make clear when information is incomplete or lacking; LBP-09-7, 69 NRC 731 (2009)
for impacts that are reasonably foreseeable, but for which the agency lacks complete information in its
analysis, the agency must indicate that such information is lacking in its environmental impact
statement; LBP-09-7, 69 NRC 731 (2009)
- 40 C.F.R. 1502.22(b)(1)
Staff's many statements in the final environmental impact statement and in testimony that certain
information is unavailable to perform a quantitative or site-specific analysis satisfies the requirements of
this section; LBP-09-7, 69 NRC 732 n.52 (2009)
- 40 C.F.R. 1502.22(b)(3)
testimony at hearing from experts in the field explaining the types of impacts that could occur satisfies
the requirements of this section; LBP-09-7, 69 NRC 732 n.52 (2009)
- 40 C.F.R. 1502.22(b)(4)
Staff's conclusion in the environmental impact statement that impacts could be MODERATE, with the
Board's finding that this was a reasonable conclusion, satisfies this requirements of this section;
LBP-09-7, 69 NRC 732 n.52 (2009)
- 40 C.F.R. 1506.6
neither the number nor location of public meetings required to satisfy an agency's public review process
for its environmental document is specified; LBP-09-6, 69 NRC 480 n.643 (2009)

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40 C.F.R. 1508.7

“cumulative impact” is defined as the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions; LBP-09-4, 69 NRC 201, 214 (2009); LBP-09-7, 69 NRC 719 (2009)

this section does not expressly state whether the environmental effect of other past and present actions may be analyzed in the aggregate or individual past and present actions must be separately analyzed; LBP-09-4, 69 NRC 201 (2009)

40 C.F.R. 1508.8

an environmental impact statement must address both direct and indirect effects of an action; LBP-09-7, 69 NRC 632 (2009)

direct effects are those caused by the federal action, and occurring at the same time and place as that action, while indirect effects are those caused by the action at a later time or more distant place, yet are still reasonably foreseeable; LBP-09-7, 69 NRC 632, 719 (2009)

40 C.F.R. 1508.8(b)

the National Environmental Policy Act requires federal agencies to examine, analyze, and disclose not only direct effects, but also indirect effects that are later in time or farther removed in distance, but are still reasonably foreseeable; LBP-09-6, 69 NRC 404 (2009)

40 C.F.R. 1508.25

an agency environmental impact statement must consider direct, indirect, and cumulative impacts of an action; LBP-09-7, 69 NRC 719 (2009)

each type of action and each type of environmental impact has its own independent significance in the sense that a conclusion that something is a “connected action” does not necessarily inform the type of impacts analysis that is performed, whether direct, indirect, or cumulative; LBP-09-7, 69 NRC 720 (2009)

40 C.F.R. 1508.27

agencies are required to consider both the context and intensity of environmental impacts; LBP-09-7, 69 NRC 633-34 (2009)

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Archaeological Resources Protection Act, 16 U.S.C. § 470aa *et seq.*
Indian tribes have an interest in artifacts related to their heritage; CLI-09-9, 69 NRC 338 (2009)

Atomic Energy Act, 11s, 42 U.S.C. § 2014(s)
“person” is defined to include government agencies other than the Commission, as well as state and foreign governments; CLI-09-14, 69 NRC 607 (2009); LBP-09-6, 69 NRC 460, 463 (2009)

Atomic Energy Act, 11s(1), 42 U.S.C. § 2014(s)(1); CLI-09-14, 69 NRC (2009)
DOE is not a “person” for purposes of this section; CLI-09-14, 69 NRC 607 (2009)

Atomic Energy Act, 42 U.S.C. § 2021c(b)(1)(D)
partial closure of a low-level waste disposal facility does not directly affect the disposal of Greater-Than-Class-C radioactive waste because the disposal of that type of waste is the responsibility of the federal government; LBP-09-4, 69 NRC 221 (2009)

Atomic Energy Act, 69, 42 U.S.C. § 2099
NRC regulations do not prohibit issuance of a materials license to a licensee wholly owned by a foreign parent, but NRC Staff must find that issuance of the license will not be inimical to the common defense and security or to the health and safety of the public; CLI-09-12, 69 NRC 571 (2009)
whether foreign ownership of applicant renders issuance of a license inimical to the common defense and security or to the health and safety of the public is discussed; LBP-09-1, 69 NRC 30 n.73 (2009)

Atomic Energy Act, 101, 42 U.S.C. § 2131
a “person,” as the term is used throughout the Atomic Energy Act, is required to be licensed in order to conduct nuclear activities; LBP-09-6, 69 NRC 463 (2009)

Atomic Energy Act, 103(d), 42 U.S.C. § 2012(d)
materials license regulations contain no express prohibition against foreign ownership, but require the Staff to make a finding that the issuance of the license will not be inimical to the common defense and security; CLI-09-9, 69 NRC 360 (2009)
no license for a production or utilization facility may be issued to an alien or any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; CLI-09-9, 69 NRC 360 n.151 (2009); LBP-09-4, 69 NRC 192 (2009)
the foreign ownership provisions of this section do not apply to in situ leach recovery licensees; CLI-09-12, 69 NRC 568 n.146 (2009)

Atomic Energy Act, 170, 42 U.S.C.A. § 2210
persons living near a proposed nuclear power plant have standing to challenge the constitutionality of the Price-Anderson Act; CLI-09-9, 69 NRC 340 (2009)

Atomic Energy Act, 182a, 42 U.S.C. § 2232(a)
adequate character and safety culture are licensing requirements of the NRC; LBP-09-6, 69 NRC 464 (2009)
citizenship of an applicant may be considered in the context of a license application; CLI-09-9, 69 NRC 359 (2009)
general information that must be included in any application for a license is described; LBP-09-6, 69 NRC 463 (2009)
license applications of private applicants or licensees shall provide information as the Commission may deem necessary to decide the character of the applicant; CLI-09-14, 69 NRC 605 (2009)
the condition that requires investigation of an individual’s character to grant access to restricted data is not linked to the general license criteria of this section; LBP-09-6, 69 NRC 464 (2009)

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- Atomic Energy Act, 185b, 42 U.S.C. § 2235(b)
with respect to combined licenses under 10 C.F.R. Part 52, interested persons may request a hearing as to the adequacy of construction after issuance of a combined license; CLI-09-2, 69 NRC 61 n.20 (2009)
- Atomic Energy Act, 189a, 42 U.S.C. § 2239(a)(1)(A)
the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding; LBP-09-1, 69 NRC 25 (2009); LBP-09-4, 69 NRC 177 (2009)
where Congress provides for a hearing, and does not specify that the adjudicatory hearings are to be on-the-record, or conducted as an adjudication under 5 U.S.C. 554, 556, and 557 of the Administrative Procedure Act, it is presumed that informal hearings are sufficient; CLI-09-7, 69 NRC 280 n.261 (2009)
- Atomic Energy Act, 189a(1)(B), 42 U.S.C. § 2239(a)(1)(B)
with respect to combined licenses, interested persons may request a hearing as to the adequacy of construction after issuance of a combined license; CLI-09-2, 69 NRC 61 n.20 (2009)
- Atomic Energy Act, 189a(2)(A), 42 U.S.C. § 2239(a)(2)(A)
Staff is permitted to issue an amendment to a reactor operating license notwithstanding the pendency of an adjudicatory hearing if it determines that the licensing action involves no significant hazards consideration; CLI-09-5, 69 NRC 122 n.29 (2009)
- Atomic Energy Act, 234, 42 U.S.C. § 2282
a civil penalty of \$130,000 was imposed on licensee for failure of the radio-only activation feature of the emergency notification system to meet its test acceptance criteria; DD-09-1, 69 NRC 511-12 (2009)
- Energy and Water Development Appropriations Act of 1993, Pub. L. No. 102-377, Title V, § 502, 106 Stat. 1342 (1992)
NRC appropriations shall not be used to pay the expenses of, or otherwise compensate, parties intervening in regulatory or adjudicatory proceedings; LBP-09-1, 69 NRC 43 (2009)
- Energy Policy Act of 1992, 801(a), 42 U.S.C. § 10141 note
the Environmental Protection Agency is responsible for promulgating standards for environmental protection, and NRC is tasked with promulgating the criteria it will apply in the licensing proceeding; LBP-09-6, 69 NRC 421 (2009)
- Energy Policy Act of 1992, 801(b)(1), 42 U.S.C. § 10141 note
NRC's criteria must not be inconsistent with the Environmental Protection Agency's environmental protection standards; LBP-09-6, 69 NRC 421 (2009)
- Energy Policy Act of 2005, 651(b)
licensees of plants located where there is a permanent population in excess of 15,000,000 within a 50-mile radius of the power plant are required to have backup power for the emergency notification system, including the emergency siren warning system; DD-09-1, 69 NRC 506 (2009)
requirements for the backup power supply for the public alerting system are discussed; DD-09-1, 69 NRC 506-07 (2009)
- Energy Reorganization Act, 201, 42 U.S.C. § 5841
action of the Commission is determined by a majority vote of the members present; CLI-09-1, 69 NRC 1 n.1 (2009)
- Energy Reorganization Act, 202(3), 42 U.S.C. § 5842
even though DOE is not a "person" subject to regulation under the Atomic Energy Act, Congress provided the NRC with the licensing and related regulatory authority that authorize it to review the Yucca Mountain application; CLI-09-14, 69 NRC 608 n.160 (2009)
- National Environmental Policy Act, 102, 42 U.S.C. § 4332
every federal agency has the duty to examine to the fullest extent possible the environmental consequences of any proposed federal action that might significantly affect the quality of the human environment; LBP-09-6, 69 NRC 403 (2009)
- National Environmental Policy Act, 42 U.S.C. § 4332(2)(C)(ii)
applicant's environmental report must disclose any adverse environmental effects that cannot be avoided should the proposal be implemented; LBP-09-4, 69 NRC 229 (2009)

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- National Environmental Policy Act, 42 U.S.C. § 4332(2)(C)(iii)
agencies must provide a detailed statement of reasonable alternatives to a proposed action; LBP-09-7, 69 NRC 633 (2009)
- National Environmental Policy Act, 42 U.S.C. § 4332(2)(E)
an agency is required to consider alternatives that are appropriate alternatives to recommended courses of action; LBP-09-2, 69 NRC 108 n.84 (2009)
- National Historic Preservation Act, § 106
a federal agency must consult with a tribe concerning a federal action that might affect sites of cultural interest to the tribe; CLI-09-9, 69 NRC 338 (2009)
- National Historic Preservation Act, 16 U.S.C. § 470 *et seq.*
Indian tribes have an interest in artifacts related to their heritage; CLI-09-9, 69 NRC 338 (2009)
Staff must consult with the Tribal Historic Preservation Officer before it approves a licensing action; CLI-09-9, 69 NRC 348 (2009)
- National Historic Preservation Act, 16 U.S.C. § 470(a) (1990)
the consultation duty imposed on the Staff was added in 1992; CLI-09-9, 69 NRC 349 (2009)
- Native American Graves Protection and Repatriation Act, 25 U.S.C. § 3001 *et seq.*
Indian tribes have an interest in artifacts related to their heritage; CLI-09-9, 69 NRC 338 (2009)
- Nuclear Waste Policy Act, 2, 42 U.S.C. §§ 10101-10270
any affected unit of local government need not address standing in the high-level waste proceeding, but rather shall be considered a party provided that it files at least one admissible contention in accordance with 10 C.F.R. 2.309(f); LBP-09-6, 69 NRC 381 (2009)
- Nuclear Waste Policy Act, 2(18), 42 U.S.C. § 10101(18)
“repository” is defined as any system licensed by the Commission that is intended to be used for, or may be used, for the permanent deep geologic disposal of high-level radioactive waste and spent nuclear fuel; LBP-09-6, 69 NRC 478 (2009)
- Nuclear Waste Policy Act, 114(a)(1)(D), 42 U.S.C. § 10134(a)(1)(D)
DOE is precluded from the need to consider alternatives to geologic disposal, or alternative sites to the Yucca Mountain site; LBP-09-6, 69 NRC 478 (2009)
- Nuclear Waste Policy Act, 114(b), 42 U.S.C. § 10134(b)
DOE was required to submit an application for a construction authorization to the NRC, irrespective of DOE’s National Environmental Policy Act analysis; LBP-09-6, 69 NRC 395 (2009)
- Nuclear Waste Policy Act, 114(d), 42 U.S.C. § 10134(d)
because the significance of the current capacity limitation for the deep waste repository is unclear, a contention is admitted as a legal issue; LBP-09-6, 69 NRC 479 (2009)
the Commission decision approving the first construction authorization for the high-level waste repository application shall prohibit the emplacement in the first repository of a quantity of spent fuel containing in excess of 70,000 metric tons of heavy metal or a quantity of solidified high-level radioactive waste resulting from the reprocessing of such a quantity of spent fuel until such time as a second repository is in operation; CLI-09-14, 69 NRC 592 (2009)
when Congress designated DOE as the applicant for the high-level waste repository, it envisioned a situation where, after the Commission’s review, the Commission could find that DOE, although the designated applicant, would not be the designated licensee; LBP-09-6, 69 NRC 464 (2009)
- Nuclear Waste Policy Act, 114(f)(2)
DOE need not consider alternatives to isolation in a repository; LBP-09-6, 69 NRC 478 (2009)
- Nuclear Waste Policy Act, 114(f)(4), 42 U.S.C. § 10134(f)(4)
any environmental impact statement prepared in connection with a repository proposed to be constructed by DOE shall, to the extent practicable, be adopted by the NRC in connection with the issuance by the NRC of a construction authorization and license for such repository; LBP-09-6, 69 NRC 392 (2009)
NRC must undertake its own assessment of DOE’s environmental documents to determine whether it is practicable to adopt them; LBP-09-6, 69 NRC 405 (2009)
to the extent any environmental impact statement prepared in connection with a repository is adopted by NRC, such adoption shall be deemed to also satisfy the responsibilities of NRC under NEPA and no further consideration shall be required, except that nothing in this subsection shall affect any

LEGAL CITATIONS INDEX

STATUTES

- independent responsibilities of the NRC to protect public health under the AEA; LBP-09-6, 69 NRC 392 (2009)
- Nuclear Waste Policy Act, 114(f)(5), 42 U.S.C. § 10134(f)(5)
nothing in this statute detracts from the Commission's other applicable licensing requirements, which would include requirements pertaining to the qualifications of the applicant under the Atomic Energy Act; LBP-09-6, 69 NRC 464 (2009)
this statute does not diminish any part of the Commission's authority to review license applications and issue licenses under the Atomic Energy Act; LBP-09-6, 69 NRC 464 (2009)
- Nuclear Waste Policy Act, 121(a), (b)(1)(A), 42 U.S.C. § 10141(a), (b)(1)(A)
EPA is responsible for promulgating standards for environmental protection, and NRC is tasked with promulgating the criteria it will apply in the licensing proceeding; LBP-09-6, 69 NRC 421 (2009)
- Nuclear Waste Policy Act, 121(b)(1)(C), 42 U.S.C. § 10141(b)(1)(C)
NRC's criteria must not be inconsistent with the Environmental Protection Agency's environmental protection standards; LBP-09-6, 69 NRC 421 (2009)
- Pub. L. No. 97-88, Title V, § 502, 95 Stat. 1148 (1981)
funding to intervenors is proscribed; LBP-09-1, 69 NRC 43 (2009)
- Pub. L. No. 102-377, Title V, § 502, 106 Stat. 1342 (Oct. 2, 1992), 5 U.S.C. § 504 note
NRC is prohibited from paying the expenses of or otherwise compensating intervening in its proceedings; CLI-09-4, 69 NRC 82 (2009)

**LEGAL CITATIONS INDEX
OTHERS**

- H.R. Rep. No. 93-707 (1973) at 25
with limited exceptions, the definitions in section 11 of the Atomic Energy Act apply to NRC and DOC;
CLI-09-14, 69 NRC 608 n.160 (2009)
- H.R. Rep. No. 97-491, pt. 1, at 48 (1982)
throughout the repository development program, the Secretary and other agencies must meet the general requirements and the spirit of the National Environmental Policy Act; LBP-09-6, 69 NRC 397 (2009)
- H.R. Rep. No. 97-491, pt. 1, at 48, 53-54 (1982)
the Nuclear Waste Policy Act's mandate that the environmental impact statement be adopted by NRC to the extent practicable is intended to avoid duplication of the environmental review process but does not permit NRC to premise a construction-authorization or licensing decision upon an EIS that does not meet the substantive requirements of the National Environmental Policy Act or the Council on Environmental Quality's NEPA regulations; LBP-09-6, 69 NRC 397 (2009)
- H.R. Rep. No. 103-888, § 2.5 (1995)
functions of the Energy Research and Development Administration were transferred to DOE upon its creation in 1977 by the Department of Energy Organization Act; CLI-09-14, 69 NRC 607 (2009)
- Martin G. Malsch, *The Purchase of U.S. Nuclear Power Plants by Foreign Entities*, 20 Energy L.J. 263, 275-277 (1999)
it is not inimical to the national defense and security to grant transfer ownership to foreign entities whose influence is primarily economic; LBP-09-4, 69 NRC 193 (2009)
- Robert W. Hamilton & Richard A. Booth, *Corporations* 720 (5th ed. 2006)
"control" of a corporation is defined as management of the business; LBP-09-4, 69 NRC 192 (2009)
- S. Rep. No. 1699-83, at 7 (1954), *reprinted in* 1954 U.S.C.C.A.N. 3456, 3464
the condition that requires investigation of an individual's character to grant access to restricted data is not linked to the general license criteria of Atomic Energy Act § 182(a); LBP-09-6, 69 NRC 464 (2009)
- S. Rep. No. 1699-83, at 9 (1954), *reprinted in* 1954 U.S.C.C.A.N. 3456, 3464
references to the word "private" in the legislative history of the Atomic Energy Act appear in the context of a general discussion of the purpose of the AEA, which recognized that the prior law placed prohibitions on private participation in atomic energy; LBP-09-6, 69 NRC 463 (2009)

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ABEYANCE OF CONTENTION

a contention raised in a combined license hearing challenging information in a design certification rulemaking, if otherwise admissible, should be referred to the Staff for consideration in the rulemaking, and held in abeyance by the licensing board pending outcome of the rulemaking; CLI-09-4, 69 NRC 80 (2009); LBP-09-3, 69 NRC 139 (2009)

ABEYANCE OF PROCEEDING

the burden of participating in a proceeding is not a harm that can form the basis for holding a proceeding in abeyance; CLI-09-8, 69 NRC 317 (2009)

ABUSE OF DISCRETION

the Commission defers to board rulings on contention admissibility in the absence of clear error or abuse of discretion; CLI-09-14, 69 NRC 580 (2009)

ACCIDENTS

events having a less than a one in one million probability of occurring are not credible events; LBP-09-4, 69 NRC 170 (2009)

if the accident sought to be considered is sufficiently unlikely, such that it can be characterized fairly as remote and speculative, then consideration under the National Environmental Policy Act is not required as a matter of law; LBP-09-4, 69 NRC 170 (2009)

See also Severe Accident Mitigation Alternatives Analysis

AFFIDAVITS

a purely legal-issue contention need not allege facts or present arguments by affidavit; LBP-09-6, 69 NRC 367 (2009)

all pleadings are expected to be relevant, material, and reliable; LBP-09-6, 69 NRC 367 (2009)

authorization for an organization to represent an individual must be filed with specific reference to the proceeding in which standing is sought for the organization; CLI-09-9, 69 NRC 331 (2009)

each factual environmental contention must be accompanied by one or more affidavits, but a purely legal-issue contention cannot logically require affidavit support, as by definition such a contention alleges no facts that require support; LBP-09-6, 69 NRC 367 (2009)

expert affidavits supporting motions to reopen must be presented by competent individuals with knowledge of the facts alleged or by experts in the appropriate disciplines, and the evidence must meet admissibility standards; CLI-09-7, 69 NRC 235 (2009)

it is not necessary for petitioners to allege facts under section 2.309(f)(1)(v) or to provide an affidavit that sets out the factual and/or technical bases under section 51.109(a)(2) to support a purely legal contention; CLI-09-14, 69 NRC 580 (2009)

motions to reopen must be accompanied by affidavits of qualified experts presenting the factual and/or technical bases for the claim that there is a significant safety issue, together with evidence that satisfies admissibility standards; CLI-09-5, 69 NRC 115 (2009); CLI-09-7, 69 NRC 235 (2009)

requests for rule waiver or exception must be accompanied by an affidavit that identifies with particularity the special circumstances alleged to justify the waiver or exception requested; LBP-09-6, 69 NRC 367 (2009)

SUNSI requests need not be accompanied by affidavits or include lengthy, detailed justifications addressing the likelihood of standing; LBP-09-5, 69 NRC 303 (2009)

support for environmental contentions in the high-level waste proceeding must set forth significant and substantial grounds for the claim that it is not practicable to adopt the environmental impact statement for the proposed repository prepared by DOE; LBP-09-6, 69 NRC 367 (2009)

SUBJECT INDEX

there is no requirement that an expert's opinion must include specific references to supporting sources and documents; LBP-09-6, 69 NRC 367 (2009)

AGING MANAGEMENT

to satisfy the reasonable assurance standard for its aging management program, a license renewal applicant must make a showing that meets the preponderance of the evidence threshold of compliance with the applicable regulations, not a 95% confidence level of compliance; CLI-09-7, 69 NRC 235 (2009)

AIRCRAFT CRASHES

events that could cause radioactive releases, including aircraft impact events, are included within the set of design basis events required to be analyzed and designed against only if the probability of such events is above one in one million per year; LBP-09-2, 69 NRC 87 (2009)

the need for design features to guard against design basis threats is outside the scope of a combined license proceeding because it is the subject of an ongoing rulemaking; LBP-09-2, 69 NRC 87 (2009)

ALARA

licensees must use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses that are as low as reasonably achievable; CLI-09-14, 69 NRC 580 (2009)

the geologic repository operations area must meet the requirements of 10 C.F.R. Part 20; CLI-09-14, 69 NRC 580 (2009)

ALARA PRINCIPLE

a site will be considered for restricted release if further reductions in residual radioactivity necessary to comply with the provisions of 10 C.F.R. 20.1402 would result in net public or environmental harm or need not be made because residual levels associated with the restricted conditions are as low as reasonably achievable; CLI-09-1, 69 NRC 1 (2009)

ALTERNATIVES

See Consideration of Alternatives

AMENDMENT

even if an environmental impact statement prepared by the Staff is found to be inadequate in certain respects, the board's findings, as well as the adjudicatory record, become, in effect, part of the final EIS; LBP-09-7, 69 NRC 613 (2009)

AMENDMENT OF CONTENTIONS

new or amended contentions may be filed only with leave of the presiding officer upon a showing that satisfies the three criteria set out in 10 C.F.R. 2.309(f)(2); CLI-09-7, 69 NRC 235 (2009)

opportunities are provided to file new or amended contentions to address new developments when they arise; CLI-09-4, 69 NRC 80 (2009)

APPEAL PANEL

although the Atomic Safety and Licensing Appeal Board was disbanded in 1991, its decisions still carry precedential value; CLI-09-2, 69 NRC 55 (2009)

APPEALS

a SUNSI requester may challenge NRC Staff's adverse determination with respect to access to SUNSI by filing a challenge with the presiding officer, and the NRC Staff may file a reply to the requester's challenge; LBP-09-5, 69 NRC 303 (2009)

an immediate right to appeal a board ruling selecting a hearing procedure is provided; CLI-09-12, 69 NRC 535 (2009)

in situations in which a board denies a petition to intervene in its entirety or grants a petition to intervene that, according to an opposing litigant, should have been denied in its entirety, the losing litigant has a right to Commission review; CLI-09-6, 69 NRC 128 (2009)

interlocutory rulings may be reviewed, if necessary, on appeals from partial initial decisions or other final appealable orders; CLI-09-6, 69 NRC 128 (2009)

the Commission defers to a board's rulings on standing and contention admissibility in the absence of clear error or abuse of discretion; CLI-09-8, 69 NRC 317 (2009); CLI-09-9, 69 NRC 331 (2009)

See also Appellate Review

SUBJECT INDEX

APPEALS, INTERLOCUTORY

Commission rules in 10 C.F.R. 2.311(d) set a 10-day limit for appealing the selection of a particular hearing procedure because an appeal cannot wait until a board issues a decision on the merits of a contention; CLI-09-7, 69 NRC 235 (2009)

interlocutory review may be granted if the challenged order affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-09-2, 69 NRC 55 (2009)

rejection or admission of a contention, where the petitioner has been admitted as a party and has other contentions pending, neither constitutes serious and irreparable impact, nor affects the basic structure of the proceeding in a pervasive and unusual manner; CLI-09-9, 69 NRC 331 (2009)

review of the presiding officer's decision will be granted where the decision either threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review, or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-09-9, 69 NRC 331 (2009)

See also Review, Interlocutory

APPELLATE REVIEW

a board did not act unreasonably in basing standing on potential harm from new operations that would be similar to harm that petitioner claims he has suffered from existing operations; CLI-09-12, 69 NRC 535 (2009)

a petition for review does not automatically prevent issuance of a renewed operating license; CLI-09-7, 69 NRC 235 (2009)

although a petition for review does not challenge anything the boards actually decided, the Commission addresses the merits of the request as an exercise of its ultimate supervisory control over NRC proceedings; CLI-09-10, 69 NRC 521 (2009)

although the Commission has authority to make *de novo* findings of fact, it does not do so where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-09-7, 69 NRC 235 (2009)

grant of petitions for review is discretionary and five factors are weighed; CLI-09-7, 69 NRC 235 (2009)

petitioners may not skirt contention rules by initially filing unsupported contentions and later recasting or modifying their contentions on appeal with new arguments never raised before the board; CLI-09-5, 69 NRC 115 (2009)

requirement to show distinct new harm from a license amendment application would not preclude standing to contest commencement of new operations at a separate site, where petitioner showed potential for harm to himself from new operation; CLI-09-12, 69 NRC 535 (2009)

the Commission cannot find clear error in a board's failure to acknowledge an argument that was not brought to its attention and to which the petitioners had no opportunity to respond; CLI-09-12, 69 NRC 535 (2009)

the Commission defers to board rulings on standing and contention admissibility in the absence of clear error or abuse of discretion; CLI-09-7, 69 NRC 235 (2009); CLI-09-12, 69 NRC 535 (2009); CLI-09-14, 69 NRC 580 (2009)

the Commission does not entertain on appeal arguments not raised before a licensing board; CLI-09-12, 69 NRC 535 (2009)

the Commission is entitled to review the record itself and amplify the board's findings; CLI-09-14, 69 NRC 580 (2009)

the Commission will review legal questions *de novo*, and will reverse a licensing board's legal rulings if they are a departure from or contrary to established law; CLI-09-7, 69 NRC 235 (2009)

the Commission's standard of clear error for overturning a board's factual finding is quite high, and the Commission defers to its boards' findings unless they are not plausible even in light of the record viewed in its entirety; CLI-09-7, 69 NRC 235 (2009)

unless there is a strong reason to believe that in a particular case a board has overlooked or misunderstood important evidence, the Commission will defer to its findings of fact; CLI-09-7, 69 NRC 235 (2009)

unreviewed Board rulings carry no precedential weight; CLI-09-14, 69 NRC 580 (2009)

APPLICANTS

as the proponent of the agency action at issue, applicant generally has the burden of proof in a licensing proceeding, but when environmental contentions are involved, the burden shifts to the Staff, because

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- NRC, not an applicant, has the burden of complying with the National Environmental Policy Act; LBP-09-7, 69 NRC 613 (2009)
- because Staff relies heavily upon applicant's environmental report in preparing the environmental impact statement, should applicant become a proponent of a particular challenged position set forth in the EIS, applicant also has the burden on that matter; LBP-09-7, 69 NRC 613 (2009)
- citizenship of an applicant may be considered in the context of a license application; CLI-09-9, 69 NRC 331 (2009)
- contention alleging foreign ownership of applicant, failure to disclose, and various ramifications of such ownership, is found to be admissible; LBP-09-1, 69 NRC 11 (2009)
- contentions that DOE lacks management integrity to operate a high-level waste geologic repository are impermissible challenges to the Nuclear Waste Policy Act and are therefore beyond the scope of the proceeding; CLI-09-14, 69 NRC 580 (2009)
- each combined license applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom; LBP-09-2, 69 NRC 87 (2009)
- the ultimate burden of proof on the question of whether a permit or license should be issued is on the applicant, but the party contending that the permit or license should be denied has the burden of going forward with evidence to buttress that contention; CLI-09-7, 69 NRC 235 (2009)
- when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant with regard to issues such as site selection and facility design; LBP-09-7, 69 NRC 613 (2009)
- See also Licensees
- AQUATIC IMPACTS**
- direct, indirect, and cumulative impingement/entrainment and thermal effluent discharge impacts of the proposed cooling system intake and discharge structures on aquatic resources are discussed; LBP-09-7, 69 NRC 613 (2009)
- extent and duration of dredging, its impacts on water quality, the disposal of any dredged material, and the impacts on aquatic biota are discussed; LBP-09-7, 69 NRC 613 (2009)
- ARSENIC**
- a board erred in admitting a contention on adverse health effects of exposure to arsenic, where petitioners had not laid a foundation and their arguments were speculative; CLI-09-9, 69 NRC 331 (2009)
- contention based on a recent study suggesting a link between low levels of arsenic in drinking water and diabetes is rejected; CLI-09-12, 69 NRC 535 (2009)
- contention on health effects of contamination of drinking water from mining operations is admissible in materials license amendment proceeding; LBP-09-1, 69 NRC 11 (2009)
- ATOMIC ENERGY ACT**
- Commission policy of permitting the conduct of an adjudicatory proceeding on a combined license that references a design certification that the Commission has not approved does not violate the Atomic Energy Act, 10 C.F.R. Part 52, or judicial decisions; CLI-09-4, 69 NRC 80 (2009)
- "person" is defined to include government agencies other than the Commission, as well as state and foreign governments; LBP-09-6, 69 NRC 367 (2009)
- references to the word "private" in the legislative history appear in the context of a general discussion of the purpose of the Atomic Energy Act, which recognized that the prior law placed prohibitions on private participation in atomic energy; LBP-09-6, 69 NRC 367 (2009)
- the Department of Energy is not a "person" for purposes of Atomic Energy Act § 11s; CLI-09-14, 69 NRC 580 (2009)
- the restriction on foreign ownership focuses on safeguarding access to nuclear materials, a security issue, and not on other licensing matters; LBP-09-4, 69 NRC 170 (2009)
- the ultimate test for standing is not whether NRC's test conforms to that applied by federal courts, but whether NRC's test represents a reasonable construction of section 189a of the Atomic Energy Act; LBP-09-4, 69 NRC 170 (2009)
- there is no statutory or regulatory bar, per se, on a foreign-owned or -controlled company holding a source materials license, whether as a licensee or as a parent entity; CLI-09-9, 69 NRC 331 (2009)
- BRIEFS**
- a request for briefs on legal issues is one of the many tools available to a presiding officer generally in the conduct of a proceeding; CLI-09-14, 69 NRC 580 (2009)

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additional briefing is requested on whether any additional severe accident mitigation alternatives should have been identified as potentially cost-beneficial, not whether further analysis may refine the details in the SAMA NEPA analysis; CLI-09-11, 69 NRC (2009)

the Commission should not be expected to sift unaided through earlier briefs or other documents filed before the board to piece together and discern a party's argument and the grounds for its claims; CLI-09-11, 69 NRC 529 (2009)

BRIEFS, APPELLATE

petitioner is limited to the contention as initially filed and may not rectify its deficiencies through a reply brief or on appeal; CLI-09-12, 69 NRC 535 (2009); CLI-09-14, 69 NRC 580 (2009)

petitioners may not skirt contention rules by initially filing unsupported contentions, and later recasting or modifying their contentions on appeal with new arguments never raised before the board; CLI-09-5, 69 NRC 115 (2009)

BURDEN OF PERSUASION

although petitioner bears the burden of demonstrating standing, in ruling on standing a licensing board is to construe the petition in favor of petitioner; LBP-09-1, 69 NRC 11 (2009)

in a materials licensing proceeding, petitioners have the burden to show a specific and plausible means whereby the licensing decision may harm them; CLI-09-9, 69 NRC 331 (2009)

proponents of motions to reopen the record bear a heavy burden; CLI-09-2, 69 NRC 55 (2009)

BURDEN OF PROOF

a board may view a petitioner's supporting information in a light favorable to the petitioner, but it cannot do so by ignoring contention admissibility rules, which require the petitioner (not the board) to supply all required elements for a valid intervention petition; CLI-09-7, 69 NRC 235 (2009)

a mere showing of a possible violation is not enough to reopen a record; CLI-09-7, 69 NRC 235 (2009) as the proponent of the agency action at issue, applicant generally has the burden of proof in a licensing proceeding, but when environmental contentions are involved, the burden shifts to the Staff, because NRC, not an applicant, has the burden of complying with the National Environmental Policy Act; LBP-09-7, 69 NRC 613 (2009)

because Staff relies heavily upon applicant's environmental report in preparing the environmental impact statement, should applicant become a proponent of a particular challenged position set forth in the EIS, applicant also has the burden on that matter; LBP-09-7, 69 NRC 613 (2009)

motions to reopen must be accompanied by affidavits of qualified experts presenting the factual and/or technical bases for the claim that there is a significant safety issue, together with evidence that satisfies admissibility standards; CLI-09-7, 69 NRC 235 (2009)

once an intervenor has introduced sufficient evidence to establish a prima facie case, the burden of proof shifts to the applicant who must provide sufficient rebuttal to satisfy the board that it should reject the contention as a basis for denial of the permit or license; CLI-09-7, 69 NRC 235 (2009)

the burden of satisfying the reopening requirements is a heavy one, and proponents of a reopening motion bear the burden of meeting all of these requirements; CLI-09-7, 69 NRC 235 (2009)

the initial burden of showing whether a contention meets the Commission's admissibility standards lies with the petitioner; CLI-09-8, 69 NRC 317 (2009)

the ultimate burden of proof on the question of whether a permit or license should be issued is on the applicant, but the party contending that the permit or license should be denied, has the burden of going forward with evidence to buttress that contention; CLI-09-7, 69 NRC 235 (2009)

CANCER

contention on health effects of arsenic contamination of drinking water from mining operations is admissible in a materials license amendment proceeding; LBP-09-1, 69 NRC 11 (2009)

CASE MANAGEMENT

a request for briefs on legal issues is one of the many tools available to a presiding officer generally in the conduct of a proceeding; CLI-09-14, 69 NRC 580 (2009)

licensing boards may reformulate contentions to eliminate extraneous issues or to consolidate issues for a more efficient proceeding; CLI-09-12, 69 NRC 535 (2009)

NRC rules of procedure authorize boards to hold prehearing conferences for the purposes of simplifying or clarifying the issues for hearing, after which a board might admit a revised contention; CLI-09-12, 69 NRC 535 (2009)

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to the extent applicant may be subject to unreasonable or burdensome discovery requests in the future, it is free to seek relief from the board, which has ample authority to prevent or modify unreasonable discovery demands; CLI-09-6, 69 NRC 128 (2009)

CERTIFICATION

section 2.1009(b) requires certification to the Pre-License Application Presiding Officer that the party or potential party has complied with the implementation procedures of section 2.1009(a)(2) and that to the best of his or her knowledge, the documentary material specified in 10 C.F.R. 2.1003 has been identified and made electronically available; LBP-09-6, 69 NRC 367 (2009)

CIVIL PENALTIES

for failure of the radio-only activation feature of the emergency notification system to meet its test acceptance criteria, a civil penalty of \$130,000 was imposed on licensee; DD-09-1, 69 NRC 501 (2009)

COMBINED LICENSE APPLICATION

an Atomic Safety and Licensing Board should hold any contentions on the reactor design filed in the COLA adjudication in abeyance, pending the results of the rulemaking proceeding on the design certification; CLI-09-4, 69 NRC 80 (2009)

applicant for a combined license is expressly authorized by NRC's regulations to incorporate by reference a certified design; CLI-09-8, 69 NRC 317 (2009); LBP-09-2, 69 NRC 87 (2009); LBP-09-8, 69 NRC 736 (2009)

Commission policy of permitting the conduct of an adjudicatory proceeding on a combined license that references a design certification that the Commission has not approved does not violate the Atomic Energy Act of 1954, 10 C.F.R. Part 52, or judicial decisions; CLI-09-4, 69 NRC 80 (2009)

design certification rulemaking and individual combined license adjudicatory proceedings may proceed simultaneously, and issues raised in an adjudicatory proceeding that are appropriately addressed in the generic design certification rulemaking are to be referred to the rulemaking for resolution; CLI-09-8, 69 NRC 317 (2009)

for a contention of omission, petitioner need only identify the regulatively required missing information and provide enough facts to show that the application is incomplete; LBP-09-3, 69 NRC 139 (2009)

petitioners' request for additional information on redacted portions of the combined license application is denied because the public record indicates the nature of the redacted information; CLI-09-4, 69 NRC 80 (2009)

the application must explain how applicant intends to manage low-level radioactive waste in the absence of an offsite disposal facility; LBP-09-4, 69 NRC 170 (2009)

COMBINED LICENSE PROCEEDINGS

a contention challenging information in a design certification rulemaking, if otherwise admissible, should be referred to the Staff for consideration in the rulemaking, and held in abeyance by the licensing board pending the outcome of the rulemaking; LBP-09-3, 69 NRC 139 (2009)

all proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to the licensing board; LBP-09-3, 69 NRC 139 (2009)

an environmental contention is not litigable in a COL proceeding if it has already been resolved in an early site permit proceeding; CLI-09-3, 69 NRC 68 (2009)

any contention directed at a design undergoing rulemaking review fails on its face to satisfy the admission requirements because all matters that are the subject of a rulemaking are outside the scope of licensing proceedings; LBP-09-8, 69 NRC 736 (2009)

contentions concerning an applicant's plan for disposal of Greater-Than-Class-C radioactive waste cannot be admitted because disposal of that type of waste is the responsibility of the federal government; LBP-09-4, 69 NRC 170 (2009)

failure to frame a safety concern arising from the interaction of the proposed design certification document amendment with the existing certified standard design and/or a facility-specific provision of the COLA leaves the contention as an inadmissible challenge to the Part 52 regulatory framework; LBP-09-3, 69 NRC 139 (2009)

generic issues are to be resolved as part of the design certification rulemaking process, and any concerns related to those issues must be addressed in the rulemaking and not within the scope of a COL proceeding; LBP-09-8, 69 NRC 736 (2009)

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- how applicant intends to handle low-level radioactive waste in the absence of an offsite disposal facility is material to the findings the agency must make on a combined license; LBP-09-3, 69 NRC 139 (2009)
- in a future proceeding, petitioner could proffer an application-specific contention suitable for litigation on the subject of onsite storage of low-level radioactive waste; CLI-09-3, 69 NRC 68 (2009)
- in cases involving construction or operation of a nuclear power reactor, proximity to the proposed facility has been considered sufficient to establish the requisite standing elements; LBP-09-3, 69 NRC 139 (2009)
- in determining whether an individual or organization should be granted party status in a proceeding based on standing as of right, the agency applies contemporaneous judicial standing concepts; LBP-09-3, 69 NRC 139 (2009)
- in the overall COLA/DCD process, petitioners will have an opportunity to file new contentions related to material new information regarding site-specific plant design issues; LBP-09-8, 69 NRC 736 (2009)
- the appropriate path for any petitioner's challenges to proposed reactor design revisions is through participation in those rulemaking proceedings, not through a combined license proceeding; LBP-09-2, 69 NRC 87 (2009)
- the need for design features to guard against design basis threats is outside the scope of a COL proceeding because it is the subject of an ongoing rulemaking; LBP-09-2, 69 NRC 87 (2009)
- the universe of potential contentions includes site-specific contentions that do not implicate issues appropriately considered in a design certification rulemaking; CLI-09-8, 69 NRC 317 (2009)
- COMBINED LICENSES**
- a license will not be prohibited if the foreign entity's influence is on other licensing activities not of primary concern to the NRC, or if the corporation follows NRC-implemented conditions to isolate safety matters from foreign control; LBP-09-4, 69 NRC 170 (2009)
- absent a future exemption request, applicant cannot obtain a combined license for its proposed facility until the design certification rulemaking process for a COLA-referenced revision to the COLA-referenced design certification document is completed by incorporating the revision into the certified standard design; LBP-09-3, 69 NRC 139 (2009)
- applicant will also have to demonstrate that the site-specific parameters are bounded by the parameters developed for the certified design; LBP-09-2, 69 NRC 87 (2009)
- each combined license applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom; LBP-09-2, 69 NRC 87 (2009)
- interested persons may request a hearing as to the adequacy of construction after issuance of a combined license; CLI-09-2, 69 NRC 55 (2009)
- the process for taking exemptions to and departures from a certified design is set forth in 10 C.F.R. Part 52, App. D, § VIII; LBP-09-2, 69 NRC 87 (2009)
- COMITY**
- the Commission's decision not to entertain a state intervenor's integrity and competence contentions in the high-level waste repository proceeding is consistent with its practice of extending comity to other governmental entities; CLI-09-14, 69 NRC 580 (2009)
- COMMENTS**
- the draft environmental impact statement is distributed for public comment and, based on the comments received, a review of information provided by the applicant, and supplemental independent information and analysis, the Staff prepares and issues a final EIS; LBP-09-7, 69 NRC 613 (2009)
- COMMON DEFENSE AND SECURITY**
- a domestic corporation in which a foreign entity has an ownership interest is considered controlled or dominated if its will is subjugated to the will of the foreign entity on primary safety matters or access policies that may be inimical to the national defense and security of the United States; LBP-09-4, 69 NRC 170 (2009)
- in cases involving no concern over import or export of nuclear materials, common defense and security considerations under 10 C.F.R. 40.32(d) are not implicated; LBP-09-1, 69 NRC 11 (2009)
- in the absence of unusual circumstances, the Commission need not look beyond the nonproliferation safeguards in determining whether the common defense and security standard is met; LBP-09-1, 69 NRC 11 (2009)

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- intervenor are not entitled to litigate common defense and security considerations under 10 C.F.R. 40.32(d) unless the specific common defense and security risk asserted is reasonably related to, and would arise as a direct result of, the specific license amendments that the Commission is asked to approve; LBP-09-1, 69 NRC 11 (2009)
- intervenor's nuclear proliferation concern is premised upon future third-party activities that are unrelated to the specific activities authorized by license amendments and is not litigable because it is not a direct consequence of the proposed license amendments or the Commission's approval thereof; LBP-09-1, 69 NRC 11 (2009)
- NRC case law and precedent do not prohibit considering the percentage of foreign ownership as one element in NRC's overall analysis and finding of whether the foreign entity is a threat to the national defense and security of the United States; LBP-09-4, 69 NRC 170 (2009)
- the requirement that materials licenses not be inimical to the common defense and security has been interpreted as referring to the absence of foreign control over the applicant; LBP-09-1, 69 NRC 11 (2009)
- this standard refers principally to the safeguarding of special nuclear material, the absence of foreign control over the applicant, the protection of restricted data, and the availability of special nuclear material for defense needs; CLI-09-9, 69 NRC 331 (2009)
- COMPENSATORY DAMAGES**
- licensing boards have awarded payment of litigation fees and expenses from a licensee to an intervenor if there has been legal harm to the intervenors caused by some activity or action of the licensee; LBP-09-1, 69 NRC 11 (2009)
- CONCLUSIONS OF LAW**
- the Commission will review legal questions *de novo*, and will reverse a licensing board's legal rulings if they are a departure from or contrary to established law; CLI-09-7, 69 NRC 235 (2009)
- CONDUCT OF PARTIES**
- licensing boards have broad discretion to sanction willful, prejudicial, and bad-faith behavior; LBP-09-1, 69 NRC 11 (2009)
- CONFIDENTIAL INFORMATION**
- although the SUNSI access procedures do not impose a high threshold for demonstrating need, they must be applied consistent with the principle that it is important to prevent unnecessary disclosure of sensitive information; LBP-09-5, 69 NRC 303 (2009)
- if petitioners offer a reason for needing such information material to the findings a licensing board must make and otherwise explain why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention, they would satisfy the need criterion; LBP-09-5, 69 NRC 303 (2009)
- petitioner's lack of access to SUNSI may hinder it in its ability to demonstrate why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention, but this does not absolve a petitioner from at least endeavoring to address this criterion; LBP-09-5, 69 NRC 303 (2009)
- the condition that requires investigation of an individual's character to grant access to restricted data is not linked to the general license criteria; LBP-09-6, 69 NRC 367 (2009)
- the procedure for seeking access to SUNSI does not provide a method for general or topical access, but only access to information necessary to meaningfully participate in an adjudicatory proceeding and to provide the basis and specificity of a proffered contention; LBP-09-5, 69 NRC 303 (2009)
- the requirement to discuss the basis for a proffered contention to obtain access to SUNSI is not to be equated with the discussion that would be necessary to support an admissible contention; LBP-09-5, 69 NRC 303 (2009)
- CONSIDERATION OF ALTERNATIVES**
- a reviewing agency determines whether an alternative is appropriate by looking at the objectives (i.e., purpose and need) of a project sponsor; LBP-09-2, 69 NRC 87 (2009)
- accuracy of project cost estimates only becomes relevant if an environmentally preferable alternative has been identified; LBP-09-2, 69 NRC 87 (2009)
- adequacy of the final environmental impact statement discussion and analysis of the alternative of implementing a dry cooling system for the proposed units is decided; LBP-09-7, 69 NRC 613 (2009)

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alternative energy sources that will be dependent on future environmental safeguards and technological developments need not be considered; LBP-09-7, 69 NRC 613 (2009)

an agency must consider alternatives that are appropriate alternatives to recommended courses of action; LBP-09-2, 69 NRC 87 (2009)

as long as applicant has not set forth an unreasonably narrow objective of its project, NRC adheres to the principle that when the purpose is to accomplish one thing, it makes no sense to consider alternative ways by which another thing might be accomplished; LBP-09-2, 69 NRC 87 (2009)

boards must decide whether the final environmental impact statement alternatives discussion is sufficiently complete to aid the Commission in developing and exploring appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; LBP-09-7, 69 NRC 613 (2009)

consideration of environmental impacts need not address every impact that could possibly result, but rather only those that are reasonably foreseeable or have some likelihood of occurring; LBP-09-7, 69 NRC 613 (2009)

DOE is precluded from the need to consider alternatives to geologic disposal, or alternative sites to the Yucca Mountain site; LBP-09-6, 69 NRC 367 (2009)

federal agencies must take a hard look at the environmental impacts of a proposed action, as well as reasonable alternatives to that action; LBP-09-7, 69 NRC 613 (2009)

reasonable alternatives do not include alternatives that are impractical, that present unique problems, or that cause extraordinary costs; LBP-09-7, 69 NRC 613 (2009)

technologically unproven alternatives need not be considered in an environmental impact statement; LBP-09-7, 69 NRC 613 (2009)

the board erred in admitting a contention concerning the economic value of wetlands without requiring petitioners to demonstrate that the proposed licensing action or no-action alternative would have any effect on wetlands; CLI-09-9, 69 NRC 331 (2009)

CONSTRUCTION

the Commission may authorize construction of the proposed repository if the application provides a reasonable assurance of preclosure safety and a reasonable expectation of postclosure safety; LBP-09-6, 69 NRC 367 (2009)

CONSTRUCTION COMPLETION

with respect to combined licenses, interested persons may request a hearing as to the adequacy of construction after issuance of a combined license; CLI-09-2, 69 NRC 55 (2009)

CONSTRUCTION OF TERMS

reasonable assurance is not quantified as equivalent to a 95% (or any other percent) confidence level, but is based on sound technical judgment of the particulars of a case and on compliance with the Commission's regulations; CLI-09-7, 69 NRC 235 (2009)

CONSULTATION DUTY

a federal agency must consult with a tribe concerning a federal action that might affect sites of cultural interest to the tribe; CLI-09-9, 69 NRC 331 (2009)

NRC Staff must consult with interested Indian tribes as part of its review of the application; CLI-09-12, 69 NRC 535 (2009)

petitioners' contention that NRC Staff has not consulted with an affected Indian tribe is premature if it is filed prior to the time for the Staff to act; CLI-09-9, 69 NRC 331 (2009)

the fact that NRC Staff consultation with interested Indian tribes had not yet taken place at the time a materials license amendment application was filed did not reflect a deficiency in the application and thus a contention alleging a deficiency in the application was inadmissible; CLI-09-12, 69 NRC 535 (2009)

CONTENTIONS

contentions are comparable to neither "forms of relief" nor Article III "claims," but are instead comparable to various "grounds" that may be asserted in opposition to a proposed agency action at issue; LBP-09-1, 69 NRC 11 (2009)

in a future proceeding, petitioner could proffer an application-specific contention suitable for litigation on the subject of onsite storage of low-level radioactive waste; CLI-09-3, 69 NRC 68 (2009)

intervenors are required to file environmental contentions in the first instance based on the applicant's environmental report; LBP-09-7, 69 NRC 613 (2009)

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intervenor have an ironclad obligation to regularly and diligently search publicly available NRC or applicant documents for information relevant to their contentions; CLI-09-2, 69 NRC 55 (2009)

licensing boards may reformulate contentions to eliminate extraneous issues or to consolidate issues for a more efficient proceeding; CLI-09-12, 69 NRC 535 (2009)

petitioners are not required to show standing for each contention separately; LBP-09-1, 69 NRC 11 (2009)

petitioners must raise NEPA contentions in response to the environmental report, rather than await the agency's draft environmental impact statement; LBP-09-4, 69 NRC 170 (2009)

there is no requirement for any nexus between an asserted injury and a contention; LBP-09-1, 69 NRC 11 (2009)

when Staff has prepared a draft environmental impact statement or final EIS by the time environmental contentions come before a licensing board on the merits, such contentions are appropriately treated as challenges to the EIS; LBP-09-7, 69 NRC 613 (2009)

See also Abeyance of Contention; Amendment of Contentions

CONTENTIONS, ADMISSIBILITY

a board erred in admitting a contention on adverse health effects of exposure to arsenic, where petitioners had not laid a foundation and their arguments were speculative; CLI-09-9, 69 NRC 331 (2009)

a board erred when it disregarded the rule that a reply cannot expand the scope of the arguments set forth in the original hearing request; CLI-09-12, 69 NRC 535 (2009)

a board is free to decide an issue on a theory different from those argued by the litigants, but only if it explains the specific basis of its ruling and gives the litigants a chance to present arguments and, where appropriate, evidence regarding the board's new theory; CLI-09-3, 69 NRC 68 (2009)

a board may not simply infer the bases for a contention; CLI-09-7, 69 NRC 235 (2009)

a contention is inadmissible where intervenors did not show that a model was defective or used incorrectly but simply that a different result would be achieved using their own model; LBP-09-6, 69 NRC 367 (2009)

a contention raised in combined license hearing challenging information in a design certification rulemaking, if otherwise admissible, should be referred to the Staff for consideration in the rulemaking, and held in abeyance by licensing board pending outcome of rulemaking; CLI-09-4, 69 NRC 80 (2009); LBP-09-3, 69 NRC 139 (2009)

a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-09-2, 69 NRC 87 (2009); LBP-09-3, 69 NRC 139 (2009); LBP-09-8, 69 NRC 736 (2009)

a contention that attacks applicable statutory requirements, challenges the basic structure of the NRC's regulatory process, or merely expresses generalized policy grievances is not appropriate for a board hearing; LBP-09-3, 69 NRC 139 (2009); LBP-09-6, 69 NRC 367 (2009)

a contention that fails to address the information in the application and show a genuine dispute thereon is inadmissible; CLI-09-5, 69 NRC 115 (2009)

a contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue; LBP-09-3, 69 NRC 139 (2009)

a factual dispute cannot be resolved against petitioners at the contention admissibility stage, especially when petitioners' version of the facts is supported by sworn affidavits and applicant's version is not; LBP-09-6, 69 NRC 367 (2009)

a genuine dispute exists despite the fact that character or integrity is not required by regulation to be addressed in the license application; LBP-09-6, 69 NRC 367 (2009)

a materials license amendment proceeding is not an appropriate forum to throw open an opportunity to engage in a free-ranging inquiry into the character of the licensee; LBP-09-1, 69 NRC 11 (2009)

a new contention will necessarily fail if it attacks the quality of the Staff's review rather than identifying a deficiency in the application; CLI-09-5, 69 NRC 115 (2009)

a new issue is raised only when the argument itself (as distinct from its chances of success) was not apparent at the time of the application; CLI-09-7, 69 NRC 235 (2009)

a purely legal-issue contention need not allege facts or present arguments by affidavit; LBP-09-6, 69 NRC 367 (2009)

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- a single, past violation of licensee's state permit could not demonstrate an ongoing pattern of violations or disregard for regulations that might be expected to recur in the future; CLI-09-9, 69 NRC 331 (2009)
- absent a waiver, no rule or regulation of the Commission is subject to attack in any adjudicatory proceeding; CLI-09-3, 69 NRC 68 (2009); LBP-09-6, 69 NRC 367 (2009)
- admissible contentions must satisfy the six pleading requirements of 10 C.F.R. 2.309(f)(1); LBP-09-6, 69 NRC 367 (2009); LBP-09-8, 69 NRC 736 (2009)
- affidavits supporting environmental contentions must set forth factual and/or technical bases for the claim that it is not practicable to adopt the DOE environmental impact statement; LBP-09-6, 69 NRC 367 (2009)
- all nuclear safety and environmental issues concerning severe accident mitigation design alternatives associated with NRC's environmental assessment for the AP1000 design and Appendix 1B of the generic Design Control Document are considered resolved by the Commission; LBP-09-2, 69 NRC 87 (2009)
- all proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to the licensing board; LBP-09-3, 69 NRC 139 (2009); LBP-09-6, 69 NRC 367 (2009)
- allegations of management improprieties must be of more than historical interest; CLI-09-9, 69 NRC 331 (2009)
- allegations of several serious safety problems that had persisted with respect to the reactor over a period of years are a legitimate attack on management quality and integrity; CLI-09-9, 69 NRC 331 (2009)
- allowing new claims in a reply would unfairly deprive other participants of an opportunity to rebut the new claims; LBP-09-6, 69 NRC 367 (2009)
- although a board is free to view intervenors' support for its contention in the light most favorable to intervenors, the board may not ignore the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); CLI-09-3, 69 NRC 68 (2009); CLI-09-7, 69 NRC 235 (2009)
- although a board may appropriately view a petitioner's supporting information in a light favorable to the petitioner, failure to provide such information regarding a proffered contention requires that the contention be rejected; LBP-09-3, 69 NRC 139 (2009)
- although a petitioner does not have to prove its contention at the admissibility stage, mere notice pleading is insufficient; LBP-09-6, 69 NRC 367 (2009)
- an application-specific contention concerning the environmental consequences of the need for extended onsite storage of low-level radioactive waste is admissible if it satisfies the requirements of 10 C.F.R. 2.309(f)(1); LBP-09-4, 69 NRC 170 (2009)
- an environmental contention is not litigable in a combined license proceeding if it has already been resolved in an early site permit proceeding; CLI-09-3, 69 NRC 68 (2009)
- an investigation into applicant's character should also include a review of the applicant's good character; LBP-09-6, 69 NRC 367 (2009)
- an otherwise admissible contention that raises challenges to information in a design certification rulemaking should be referred to the Staff for resolution in the rulemaking; CLI-09-8, 69 NRC 317 (2009)
- any contention directed at a design undergoing rulemaking review fails on its face to satisfy the admission requirements because all matters that are the subject of a rulemaking are outside the scope of licensing proceedings; LBP-09-8, 69 NRC 736 (2009)
- any contention that fails to directly controvert the application or that mistakenly asserts that the application does not address a relevant issue can be dismissed; LBP-09-3, 69 NRC 139 (2009)
- any contention that falls outside the specified scope of the proceeding must be rejected; LBP-09-3, 69 NRC 139 (2009)
- any supporting material provided by a petitioner, including those portions of the material that are not relied upon, is subject to board scrutiny; LBP-09-3, 69 NRC 139 (2009)
- applying the standards for late-filed contentions, a board concluded that an e-mail citing only sources that had been published, in some cases years earlier, contained no new information; CLI-09-12, 69 NRC 535 (2009)

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as long as petitioner alleges, with sufficient support, that applicant's bad character or lack of integrity has direct and obvious relevance to the licensing action at issue in the proceeding, a character-based contention is admissible; LBP-09-6, 69 NRC 367 (2009)

at the admission stage, a board simply has to find that each of the elements of contention admissibility is satisfied, and need not weigh the merits of the petitioner's arguments; CLI-09-9, 69 NRC 331 (2009)

at the admission stage, arguments that petitioners' claims are unfounded go to the merits of the contention and do not show that there is no genuine dispute over the substance of the contention; CLI-09-9, 69 NRC 331 (2009)

at the admission stage, petitioner does not have to prove its contentions and boards do not adjudicate disputed facts; LBP-09-6, 69 NRC 367 (2009)

because Intervenor's inability to satisfy the contention admissibility rules is due to factors beyond their control, the Commission declines to require them to meet both the strict late-filing requirements and the even stricter reopening standards if they identify safety issues during the upcoming years of ongoing construction of a fuel fabrication facility; CLI-09-2, 69 NRC 55 (2009)

because the significance of the current capacity limitation for the deep waste repository is unclear, a contention is admitted as a legal issue; LBP-09-6, 69 NRC 367 (2009)

boards should treat as a cognizable new consideration an attack on the Yucca Mountain environmental impact statements based on significant and substantial information that, if true, would render the statements inadequate; LBP-09-6, 69 NRC 367 (2009)

Commission pleading rules permit contentions that raise issues of law as well as contentions that raise issues of fact; CLI-09-14, 69 NRC 580 (2009)

Commission regulations do not contemplate filing a vague, unsupported pleading as a placeholder for a more detailed pleading to follow; CLI-09-5, 69 NRC 115 (2009)

compared to notice pleading in the federal courts, NRC's contention requirements have correctly been called "strict by design," but they are not intended to require the impossible; LBP-09-6, 69 NRC 367 (2009)

contention admissibility requirements are deliberately strict, and any contention that does not satisfy the requirements will be rejected; CLI-09-14, 69 NRC 580 (2009)

contention alleging foreign ownership of applicant, failure to disclose, and various ramifications of such ownership is admissible; LBP-09-1, 69 NRC 11 (2009)

contention based on a recent study suggesting a link between low levels of arsenic in drinking water and diabetes is rejected; CLI-09-12, 69 NRC 535 (2009)

contention challenging a particular use of a straight-line Gaussian air dispersion model in the applicant's severe accident mitigation alternatives analysis is admissible in a license renewal proceeding; CLI-09-11, 69 NRC 529 (2009)

contention requirements were never intended to be turned into a fortress to deny intervention; LBP-09-6, 69 NRC 367 (2009)

contention that the mere existence of numerous requests for additional information constituted *prima facie* evidence that the application is incomplete is rejected; CLI-09-12, 69 NRC 535 (2009)

contentions are inadmissible where intervenors did not perform the bare minimum preparations and there was no attempt to perform any independent analysis; LBP-09-6, 69 NRC 367 (2009)

contentions are inadmissible where petitioner offers only bald assertions and provides little support for them; LBP-09-6, 69 NRC 367 (2009)

contentions concerning an applicant's plan for disposal of Greater-Than-Class-C radioactive waste cannot be admitted because disposal of that type of waste is the responsibility of the federal government; LBP-09-4, 69 NRC 170 (2009)

contentions for which petitioners have only what amounts to generalized suspicions, hoping to substantiate them later, are barred; LBP-09-6, 69 NRC 367 (2009)

contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-09-3, 69 NRC 139 (2009); LBP-09-6, 69 NRC 367 (2009)

contentions that are not well supported by an expert are not admissible; LBP-09-6, 69 NRC 367 (2009)

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- contentions that directly or indirectly challenge Table S-3 of 10 C.F.R. 51.51 are inadmissible; LBP-09-4, 69 NRC 170 (2009)
- contentions that do not satisfy the requirements of 10 C.F.R. 2.309(f)(1) must be rejected; CLI-09-8, 69 NRC 317 (2009)
- contentions that question the Staff's review are improper; CLI-09-14, 69 NRC 580 (2009)
- DOE's management integrity to operate a high-level waste geologic repository is an impermissible challenge to the Nuclear Waste Policy Act and is therefore beyond the scope of the proceeding; CLI-09-14, 69 NRC 580 (2009)
- each factual environmental contention must be accompanied by one or more affidavits, but a purely legal-issue contention cannot logically require affidavit support, as by definition such a contention alleges no facts that require support; LBP-09-6, 69 NRC 367 (2009)
- even if late-filed contention criteria are satisfied, proposed contentions still must meet the threshold admissibility standards contained in 10 C.F.R. 2.309(f)(1); CLI-09-7, 69 NRC 235 (2009)
- failure to comply with any of the contention pleading requirements of 10 C.F.R. 2.309(f) is grounds for dismissing a contention; CLI-09-5, 69 NRC 115 (2009); CLI-09-7, 69 NRC 235 (2009); LBP-09-3, 69 NRC 139 (2009)
- failure to frame a safety concern arising from the interaction of the proposed design certification document amendment with the existing certified standard design and/or a facility-specific provision of the COLA leaves the contention as an inadmissible challenge to the Part 52 regulatory framework; LBP-09-3, 69 NRC 139 (2009)
- filing of a new contention on the basis of the draft or final environmental impact statement where that document contains information that differs significantly from the information that was previously available is allowed; CLI-09-12, 69 NRC 535 (2009)
- for a contention of omission, petitioner need only identify the regulatively required missing information and provide enough facts to show that the application is incomplete; LBP-09-3, 69 NRC 139 (2009)
- for contentions to be admissible, the subject matter of the contention must impact the grant or denial of a pending license application; LBP-09-3, 69 NRC 139 (2009)
- health effects of arsenic contamination of drinking water from mining operations are litigable in a materials license amendment proceeding; LBP-09-1, 69 NRC 11 (2009)
- historical actions by an applicant or licensee are not relevant to its current fitness unless there is some direct and obvious relationship between the asserted character issues and the licensing action in dispute; CLI-09-14, 69 NRC 580 (2009)
- how applicant intends to handle low-level radioactive waste in the absence of an offsite disposal facility is material to the findings the agency must make on a combined license; LBP-09-3, 69 NRC 139 (2009)
- if petitioner neglects to provide the requisite support for its contentions, it is not within the board's power to make assumptions of fact that favor petitioner, nor may the board supply information that is lacking; LBP-09-3, 69 NRC 139 (2009)
- if the presiding officer determines that any of the admitted contentions constitute pure issues of law, those contentions must be decided on the basis of briefs or oral argument according to a schedule determined by the presiding officer; LBP-09-6, 69 NRC 367 (2009)
- if, within 60 days after pertinent information that would support the framing of a contention first becomes available, intervenors submit a particularized and otherwise admissible contention regarding the construction of the facility, then the contention will be deemed timely without the need to satisfy the balancing test for late-filing requirements; CLI-09-2, 69 NRC 55 (2009)
- in deciding the ripeness question, it is important to look to whether delayed resolution of issues would foreclose any relief from the present injury suffered by appellees; LBP-09-1, 69 NRC 11 (2009)
- in determining whether a petitioner has established standing, the board must construe the petition in favor of the petitioner; LBP-09-6, 69 NRC 367 (2009)
- in evaluating petitions to intervene, licensing boards are not free to ignore the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); CLI-09-8, 69 NRC 317 (2009)
- in proffering contentions for admission, petitioner need not make the full investigation and present both sides of the case; LBP-09-6, 69 NRC 367 (2009)

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in revising its contention admissibility requirements, the Commission sought to preclude a contention from being admitted where an intervenor has no facts to support its positions, but rather hopes to use discovery or cross-examination as a fishing expedition; LBP-09-6, 69 NRC 367 (2009)

in the case of a contention of omission, if applicant cures the omission by supplying the missing information, the contention is moot; CLI-09-8, 69 NRC 317 (2009)

in the overall COLA/DCD process, petitioners will have an opportunity to file new contentions related to material new information regarding site-specific plant design issues; LBP-09-8, 69 NRC 736 (2009)

intervenor is not required to make its case at the contention stage of the proceeding, but rather to indicate what facts or expert opinions of which it is aware at that point in time that provide the basis for its contention; LBP-09-1, 69 NRC 11 (2009)

intervenors are not entitled to litigate common defense and security considerations under 10 C.F.R. 40.32(d) unless the specific common defense and security risk asserted is reasonably related to, and would arise as a direct result of, the specific license amendments that the Commission is asked to approve; LBP-09-1, 69 NRC 11 (2009)

intervenors' concise statement of alleged facts that support the contention and reliance on various parts of the application itself satisfy the requirement that mandates references to specific portions of the application; LBP-09-1, 69 NRC 11 (2009)

intervenors have a regulatory burden to present facts or expert opinion to support their contention; CLI-09-2, 69 NRC 55 (2009)

intervenors' nuclear proliferation concern is premised upon future third-party activities that are unrelated to the specific activities authorized by license amendments and is not litigable because it is not a direct consequence of the proposed license amendments or the Commission's approval thereof; LBP-09-1, 69 NRC 11 (2009)

it is appropriate to assess both the fitness of the issue for judicial decision and the hardship to the parties of withholding court consideration; LBP-09-1, 69 NRC 11 (2009)

it is not necessary for petitioners to allege facts under section 2.309(f)(1)(v) or to provide an affidavit that sets out the factual and/or technical bases under section 51.109(a)(2) to support a purely legal contention; CLI-09-14, 69 NRC 580 (2009)

license amendment proceedings are not a forum to address past violations or accidents that have no direct bearing on the proposed amendment; CLI-09-12, 69 NRC 535 (2009)

license renewal is an appropriate occasion for appraising the entire past performance of the licensee; CLI-09-9, 69 NRC 331 (2009)

licensing boards are not authorized to admit conditionally, for any reason, contentions that fall short of meeting the specificity requirements set forth in NRC procedural rules; CLI-09-2, 69 NRC 55 (2009)

licensing boards may not add material not raised by a petitioner in order to render a contention admissible; CLI-09-12, 69 NRC 535 (2009)

material provided in support of a contention will be carefully examined by the board to confirm that on its face it does supply adequate support for the contention; LBP-09-3, 69 NRC 139 (2009)

neither mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention; LBP-09-3, 69 NRC 139 (2009)

new bases for a contention cannot be introduced in a reply brief or at 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); CLI-09-7, 69 NRC 235 (2009); CLI-09-12, 69 NRC 535 (2009)

new information concerning safety may be new evidence, but not necessarily raise a new issue; CLI-09-7, 69 NRC 235 (2009)

not all of the contention admissibility requirements of 10 C.F.R. 2.309(f)(1) necessarily apply to legal-issue contentions; LBP-09-6, 69 NRC 367 (2009)

notice pleading is expressly prohibited by the rules of practice; CLI-09-5, 69 NRC 115 (2009)

NRC regulations may not be attacked in individual NRC adjudicatory proceedings, unless the Commission waives the rule at issue for a particular proceeding, or the rule is changed or suspended due to a rulemaking review; CLI-09-10, 69 NRC 521 (2009)

offsite health and safety impacts caused by onsite activities can support the admissibility of a contention; LBP-09-6, 69 NRC 367 (2009)

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once a party demonstrates that it has standing to intervene, that party may raise any contention that, if proved, will afford the party relief from the injury it relies upon for standing; CLI-09-9, 69 NRC 331 (2009)

petitioner does not have to provide a complete or final list of its experts or evidence or prove the merits of its contention at the admissibility stage; LBP-09-6, 69 NRC 367 (2009)

petitioner is limited to the contention as initially filed and may not rectify its deficiencies through a reply brief or on appeal; CLI-09-14, 69 NRC 580 (2009)

petitioner is not required to provide expert testimony in support of his plausible scenario for injury; CLI-09-12, 69 NRC 535 (2009)

petitioner is obliged to present factual information and/or expert opinion necessary to support its contention; LBP-09-3, 69 NRC 139 (2009)

petitioner may not challenge applicable statutory requirements as part of an administrative adjudication; CLI-09-14, 69 NRC 580 (2009)

petitioner may not simply wait for the Staff to identify missing information and then ground a new contention on a request for additional information; CLI-09-12, 69 NRC 535 (2009)

petitioners' claim that a foreign-owned company would be more likely than a U.S.-owned company to export its product overseas falls outside the scope of a materials license amendment proceeding, where the applicant had not applied for a license to export recovered uranium; CLI-09-12, 69 NRC 535 (2009)

petitioners' contention that NRC Staff has not consulted with an affected Indian tribe is premature if it is filed prior to the time for the Staff to act; CLI-09-9, 69 NRC 331 (2009)

petitioners may not skirt contention rules by initially filing unsupported contentions, and later recasting or modifying their contentions on appeal with new arguments never raised before the board; CLI-09-5, 69 NRC 115 (2009)

petitioners must examine the publicly available material and set forth their claims and the support for their claims at the outset; CLI-09-7, 69 NRC 235 (2009)

petitioners must offer specific contentions on material issues, supported by alleged facts or expert opinion; CLI-09-8, 69 NRC 317 (2009)

petitioners must provide 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; CLI-09-8, 69 NRC 317 (2009)

properly formulated contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact; LBP-09-3, 69 NRC 139 (2009); LBP-09-8, 69 NRC 736 (2009)

routine rulings are usually not occasions for the Commission to exercise its authority to step into ongoing licensing board proceedings and undertake interlocutory review; CLI-09-3, 69 NRC 68 (2009)

simply attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention; LBP-09-3, 69 NRC 139 (2009)

site characterization and environmental impact statement approval process are discussed in the context of the scope of admissible issues in the high-level waste repository proceeding; LBP-09-6, 69 NRC 367 (2009)

support for a contention 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; LBP-09-6, 69 NRC 367 (2009)

the appropriate path for any petitioner's challenges to proposed reactor design revisions is through participation in those rulemaking proceedings, not through a combined license proceeding; LBP-09-2, 69 NRC 87 (2009)

the board erred in admitting a contention concerning the economic value of wetlands without requiring petitioners to demonstrate that the proposed licensing action or no-action alternative would have any effect on wetlands; CLI-09-9, 69 NRC 331 (2009)

the character or integrity of an applicant is a proper consideration in a licensing proceeding; LBP-09-6, 69 NRC 367 (2009)

SUBJECT INDEX

the Commission defers to a board's rulings on standing and contention admissibility in the absence of clear error or abuse of discretion; CLI-09-7, 69 NRC 235 (2009); CLI-09-8, 69 NRC 317 (2009); CLI-09-9, 69 NRC 331 (2009); CLI-09-12, 69 NRC 535 (2009); CLI-09-14, 69 NRC 580 (2009)

the Commission does not entertain on appeal arguments not raised before a licensing board; CLI-09-12, 69 NRC 535 (2009)

the Commission does not grant waivers where the circumstances on which the waiver's proponent relies are common to a large class of applicants or facilities; CLI-09-3, 69 NRC 68 (2009)

the Commission reverses the board's admission of two contentions; CLI-09-3, 69 NRC 68 (2009)

the Commission will review referred rulings only if the referral raises significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding; CLI-09-3, 69 NRC 68 (2009)

the Commission's decision not to entertain a state's integrity and competence contentions in the high-level waste repository proceeding is consistent with its practice of extending comity to other governmental entities; CLI-09-14, 69 NRC 580 (2009)

the fact that NRC Staff consultation with interested Indian tribes had not yet taken place at the time a materials license amendment application was filed did not reflect a deficiency in the application and thus a contention alleging such a deficiency is inadmissible; CLI-09-12, 69 NRC 535 (2009)

the National Environmental Policy Act is not an appropriate vehicle for exploring questions about the potential for a terrorist attack on a proposed nuclear facility; LBP-09-2, 69 NRC 87 (2009)

the need for design features to guard against design basis threats is outside the scope of a combined license proceeding because it is the subject of an ongoing rulemaking; LBP-09-2, 69 NRC 87 (2009)

the only relevant test for a claim that it is not practicable to adopt the DOE environmental impact statement is whether the supporting affidavit presents significant and substantial new information or new considerations sufficient to render such EIS inadequate; LBP-09-6, 69 NRC 367 (2009)

the plausible-chain-of-causation standard requires not that the potential harm to petitioner flow directly from the proposed action, but that the petitioner show that the chain of causation is plausible; CLI-09-12, 69 NRC 535 (2009)

the presiding officer in the high-level waste proceeding shall resolve disputes concerning adoption of the DOE environmental impact statement by using, to the extent possible, the criteria and procedures that are followed in ruling on motions to reopen; LBP-09-6, 69 NRC 367 (2009)

the questions of the safety and environmental impacts of onsite low-level waste storage are, in the Commission's view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions; CLI-09-3, 69 NRC 68 (2009)

the requirement of materiality often dictates that any contention alleging deficiencies or errors in an application also indicate some significant link between the claimed deficiency and either the health and safety of the public or the environment; LBP-09-3, 69 NRC 139 (2009)

the universe of potential contentions in a combined license proceeding includes site-specific contentions that do not implicate issues appropriately considered in a design certification rulemaking; CLI-09-8, 69 NRC 317 (2009)

to require petitioners to rerun a model themselves, in order to demonstrate the individual or collective effects of the defects they allege, would improperly require boards to adjudicate the merits of contentions before admitting them; LBP-09-6, 69 NRC 367 (2009)

were the Commission to permit litigants to successfully invoke interlocutory review based merely on an assertion that the licensing board erred in admitting or excluding a contention, then the Commission would be opening the floodgates to a potential deluge of interlocutory appeals from any number of participants who lose admissibility rulings; CLI-09-6, 69 NRC 128 (2009)

when DOE is before the Commission, a heightened standard applies for the admissibility of integrity contentions beyond what is imposed by 10 C.F.R. 2.309(f)(1); LBP-09-6, 69 NRC 367 (2009)

where a document relevant to the licensing proceeding was available on the agency public document management system, but not indexed by license number, the board did not act unreasonably in finding that late-filing factors weighed in favor of the party seeking to introduce the document as late support for an otherwise timely contention; CLI-09-12, 69 NRC 535 (2009)

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whether excessive safety design could lead to licensing uncertainty, unnecessary costs, or delays are not issues material to the high-level waste repository construction authorization proceeding; CLI-09-14, 69 NRC 580 (2009)

CONTENTIONS, LATE-FILED

a late-filed document that supports or provides a basis for a proposed contention should be considered using the late-filing factors of 10 C.F.R. 2.309(c) and 2.309(f)(2); CLI-09-12, 69 NRC 535 (2009)

a new contention is usually considered timely if filed within 30 days of publication of the draft environmental impact statement; CLI-09-9, 69 NRC 331 (2009)

a new issue is raised only when the argument itself (as distinct from its chances of success) was not apparent at the time of the application; CLI-09-7, 69 NRC 235 (2009)

a nonparty seeking late intervention after the record has closed must address both the standard for late intervention and the standard for reopening a closed record; CLI-09-5, 69 NRC 115 (2009)

an exceptionally grave issue may be considered in the discretion of the presiding officer, even if untimely presented; CLI-09-5, 69 NRC 115 (2009)

applicant is not required to "request" a completion finding, or call for a single action, such as an inspection, on the part of the Staff that would serve as a discrete starting point for revising a contention; CLI-09-2, 69 NRC 55 (2009)

applying the standards for late-filed contentions, a board concluded that an e-mail citing only sources that had been published, in some cases years earlier, contained no new information; CLI-09-12, 69 NRC 535 (2009)

decisions on nontimely filings require a balancing of the eight factors set forth in 10 C.F.R. 2.309(c)(1), the first of which, good cause for failure to file on time, is the most important; CLI-09-7, 69 NRC 235 (2009)

each proposed new contention must satisfy the requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi); CLI-09-5, 69 NRC 115 (2009)

even if late-filing criteria are satisfied, proposed contentions still must meet the threshold admissibility standards of 10 C.F.R. 2.309(f)(1); CLI-09-7, 69 NRC 235 (2009)

failure to comply with pleading requirements for late filings constitutes sufficient grounds for rejecting intervention and hearing requests; CLI-09-7, 69 NRC 235 (2009)

filing of a new contention on the basis of the draft or final environmental impact statement where that document contains information that differs significantly from the information that was previously available is allowed; CLI-09-12, 69 NRC 535 (2009)

good cause has long been interpreted to mean that the information on which the proposed new contention is based was not previously available; CLI-09-5, 69 NRC 115 (2009)

good cause is the most important factor to be weighed in allowing an untimely filing; CLI-09-5, 69 NRC 115 (2009); CLI-09-12, 69 NRC 535 (2009); LBP-09-6, 69 NRC 367 (2009)

if, within 60 days after pertinent information that would support the framing of a contention first becomes available, intervenors submit a particularized and otherwise admissible contention regarding the construction of the facility, then the contention will be deemed timely without the need to satisfy the balancing test for late-filing requirements; CLI-09-2, 69 NRC 55 (2009)

information in the public domain for 6 months does not establish good cause for late filing; CLI-09-5, 69 NRC 115 (2009)

new bases for a contention cannot be introduced in a reply brief or at 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); CLI-09-7, 69 NRC 235 (2009)

new information concerning safety may be new evidence, but not necessarily raise a new issue; CLI-09-7, 69 NRC 235 (2009)

new or amended contentions may be filed only with leave of the presiding officer upon a showing that satisfies the three criteria set out in 10 C.F.R. 2.309(f)(2); CLI-09-7, 69 NRC 235 (2009)

opportunities are provided to file new or amended contentions to address new developments when they arise; CLI-09-4, 69 NRC 80 (2009)

petitioner may not simply wait for the Staff to identify missing information and then ground a new contention on a request for additional information; CLI-09-12, 69 NRC 535 (2009)

petitioners must examine the publicly available material and set forth their claims and the support for their claims at the outset; CLI-09-7, 69 NRC 235 (2009)

SUBJECT INDEX

the Secretary's referral of petitioner's motion to admit a late-filed contention effectively returns jurisdiction to the licensing board to rule on the motion; CLI-09-5, 69 NRC 115 (2009)
there would be no end to NRC licensing proceedings if petitioners could disregard timeliness requirements and add new contentions at their convenience during the course of a proceeding based on information that could have formed the basis for a timely contention at the outset of the proceeding; CLI-09-7, 69 NRC 235 (2009)

where a document relevant to the licensing proceeding was available on the agency public document management system, but not indexed by license number, the board did not act unreasonably in finding that late-filing factors weighed in favor of the party seeking to introduce the document as late support for an otherwise timely contention; CLI-09-12, 69 NRC 535 (2009)

CONTESTED LICENSE APPLICATIONS

NRC Staff, as a matter of policy, seeks Commission approval to issue the license, even though issuance of the license is not stayed by the petition for review; CLI-09-7, 69 NRC 235 (2009)

COOLING SYSTEMS

adequacy of the final environmental impact statement discussion and analysis of direct, indirect, and cumulative impingement/entrainment and thermal effluent discharge impacts of the proposed cooling system intake and discharge structures on aquatic resources is decided; LBP-09-7, 69 NRC 613 (2009)

adequacy of the final environmental impact statement discussion and analysis of the alternative of implementing a dry cooling system for the proposed units is decided; LBP-09-7, 69 NRC 613 (2009)

COST-BENEFIT ANALYSES

accuracy of project cost estimates only becomes relevant if an environmentally preferable alternative has been identified; LBP-09-2, 69 NRC 87 (2009)

additional briefing is requested on whether any additional severe accident mitigation alternatives should have been identified as potentially cost-beneficial, not whether further analysis may refine the details in the SAMA NEPA analysis; CLI-09-11, 69 NRC 529 (2009)

NEPA charges federal agencies with weighing the environmental effects and impacts of the proposed project and its alternatives against each other and balancing those effects against the benefits of each such project; LBP-09-2, 69 NRC 87 (2009)

NRC's obligations under the National Environmental Policy Act focus on the adjective "environmental," and NEPA does not require the agency to assess every impact or effect, but only the impact or effect on the environment; LBP-09-2, 69 NRC 87 (2009)

once the adverse environmental effects of a proposed action are adequately identified and evaluated, the agency is not constrained from deciding that other values outweigh the environmental costs; LBP-09-7, 69 NRC 613 (2009)

quibbling over the details of an economic analysis amounts to standing NEPA on its head by asking that the license be rejected not due to environmental costs, but because the economic benefits are not as great as estimated; LBP-09-2, 69 NRC 87 (2009)

there is no statutory or regulatory requirement that an applicant demonstrate any benefit from a requested license amendment; LBP-09-1, 69 NRC 11 (2009)

COSTS

accuracy of project cost estimates only becomes relevant if an environmentally preferable alternative has been identified; LBP-09-2, 69 NRC 87 (2009)

whether excessive safety design could lead to licensing uncertainty, unnecessary costs, or delays are not issues material to the high-level waste repository construction authorization proceeding; CLI-09-14, 69 NRC 580 (2009)

COUNCIL ON ENVIRONMENTAL QUALITY

a conclusion that something is a "connected action" under CEQ regulation 40 C.F.R. 1508.25 does not necessarily inform the type of impact analysis that is performed, whether direct, indirect, or cumulative; LBP-09-7, 69 NRC 613 (2009)

an environmental impact statement must address both direct and indirect effects of an action; LBP-09-7, 69 NRC 613 (2009)

CEQ regulations are not binding on NRC when the agency has not expressly adopted them, but are entitled to considerable deference; LBP-09-7, 69 NRC 613 (2009)

in implementing the National Environmental Policy Act, NRC uses the definitions provided in CEQ regulations; LBP-09-7, 69 NRC 613 (2009)

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COUNCIL ON ENVIRONMENTAL QUALITY GUIDELINES

in its conclusions regarding the environmental impacts of a proposed action or alternative actions, the Staff uses as guidance a standard scheme to categorize or quantify the impacts; LBP-09-7, 69 NRC 613 (2009)

CREDIBILITY

credibility of a witness testifying based on technical expertise is not the same as the credibility of an eyewitness to a past event; CLI-09-7, 69 NRC 235 (2009)

CROSS-EXAMINATION

this procedure is allowed in Subpart L proceedings only when the presiding officer decides that it is necessary to ensure an adequate record for decision; CLI-09-7, 69 NRC 235 (2009)

CULTURAL RESOURCES

NRC must make a reasonable and good-faith effort to identify any Indian tribes that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties; CLI-09-12, 69 NRC 535 (2009)

standing is granted to an Indian tribe based on its interest in cultural artifacts onsite that could be affected by a proposed licensing action; CLI-09-9, 69 NRC 331 (2009)

CUMULATIVE IMPACTS ANALYSIS

agencies must consider cumulative impacts of a proposed action as defined in Council on Environmental Quality regulations; LBP-09-7, 69 NRC 613 (2009)

it would be inconsistent with NEPA's rule of reason to require that the cumulative impacts analysis individually analyze the effects of remote facilities absent a demonstration that such additional effort would lead to a different conclusion; LBP-09-4, 69 NRC 170 (2009)

DAMAGES

See Compensatory Damages

DEADLINES

a 10-day deadline from the date of the hearing notice is reasonable for filing requests for access to safeguards information or sensitive, unclassified, nonsafeguards information; CLI-09-4, 69 NRC 80 (2009)

arguments on a separate matter, which petitioner adopts in a motion for reconsideration but could have made earlier, do not reset the clock for purposes of calculating timeliness; CLI-09-8, 69 NRC 317 (2009)

Commission rules in 10 C.F.R. 2.311(d) set a 10-day limit for appealing the selection of a particular hearing procedure because an appeal cannot wait until a board issues a decision on the merits of a contention; CLI-09-7, 69 NRC 235 (2009)

difficulties in coordinating action among volunteers and large public interest organizations and the challenge of simultaneously preparing for an environmental scoping meeting while drafting contentions does not constitute good cause necessary to justify an extension of the deadline to file hearing requests or petitions to intervene; CLI-09-4, 69 NRC 80 (2009)

if, within 60 days after pertinent information that would support the framing of a contention first becomes available, intervenors submit a particularized and otherwise admissible contention regarding the construction of the facility, then the contention will be deemed timely without the need to satisfy the balancing test for late-filing requirements; CLI-09-2, 69 NRC 55 (2009)

the Commission or presiding officer may extend a time limit upon a showing of good cause; CLI-09-4, 69 NRC 80 (2009)

the newness of a deadline, along with petitioners' companion requests for additional resources to support their requests for such safeguards information justify a 10-day extension to request access to the information; CLI-09-4, 69 NRC 80 (2009)

DECISIONS

although the Atomic Safety and Licensing Appeal Board was disbanded in 1991, its decisions still carry precedential value; CLI-09-2, 69 NRC 55 (2009)

See also Licensing Board Decisions

DECOMMISSIONING

a preclosure safety analysis must be performed for the high-level waste repository and it must demonstrate, among other things, that the requirements of 10 C.F.R. 63.111(a) are met; CLI-09-14, 69 NRC 580 (2009)

SUBJECT INDEX

after completion of decommissioning, neither licensee nor the NRC retains any continuing obligation or jurisdiction, respectively, with respect to a site, unless new information shows that the Part 20 criteria were not met and the residual radioactivity remaining on the site could result in a significant threat to public health and safety; CLI-09-1, 69 NRC 1 (2009)

leach rate testing protocol for slag and baghouse dust piles is discussed; CLI-09-1, 69 NRC 1 (2009)

section 40.42(d) of 10 C.F.R. is written in terms of releasing buildings or areas in accordance with NRC criteria; CLI-09-1, 69 NRC 1 (2009)

until decommissioning is completed, licensee must limit actions to those related to decommissioning and control access to restricted areas until they are suitable for release; CLI-09-1, 69 NRC 1 (2009)

whether a site is suitable for unrestricted or restricted release, the license is terminated upon the completion of decommissioning; CLI-09-1, 69 NRC 1 (2009)

with respect to possession, a Part 40 license continues in effect after expiration until decommissioning is completed; CLI-09-1, 69 NRC 1 (2009)

DECOMMISSIONING FUNDING

applicant is permitted to choose a single method or a combination of methods to demonstrate financial assurance; LBP-09-4, 69 NRC 170 (2009)

it is beyond the authority of a licensing board to require applicant to choose a certain method of decommissioning funding; LBP-09-4, 69 NRC 170 (2009)

regulations and guidance documents fail to state when proof of applicant's financial assurance for decommissioning funding is required; LBP-09-4, 69 NRC 170 (2009)

the unavailability of funding for decommissioning adequate to achieve unrestricted release of a site is not one of the conditions specified in 10 C.F.R. 20.1403(a); CLI-09-1, 69 NRC 1 (2009)

there is no provision that requires an applicant or licensee to choose one form of decommissioning assurance over another; LBP-09-4, 69 NRC 170 (2009)

DEFINITIONS

"cumulative impacts" are defined; LBP-09-7, 69 NRC 613 (2009)

"direct environmental effects" are those caused by the federal action, and occurring at the same time and place as that action; LBP-09-7, 69 NRC 613 (2009)

federal "undertakings," are defined as any project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those requiring a federal permit, license, or approval; CLI-09-12, 69 NRC 535 (2009)

in implementing the National Environmental Policy Act, NRC uses the definitions provided in Council on Environmental Quality regulations; LBP-09-7, 69 NRC 613 (2009)

"indirect environmental effects" are those caused by the action at a later time or more distant place, yet are still reasonably foreseeable; LBP-09-7, 69 NRC 613 (2009)

"performance assessment" is defined as a systematic analysis that quantitatively estimates radiological exposures; LBP-09-6, 69 NRC 367 (2009)

"person" is defined to include government agencies other than the Commission, as well as state and foreign governments; LBP-09-6, 69 NRC 367 (2009)

"potential party" is any person who intends, or may intend, to participate as a party in the proceeding by demonstrating standing and by filing an admissible contention; LBP-09-5, 69 NRC 303 (2009)

"repository" is defined as any system licensed by the Commission that is intended to be used for, or may be used for the permanent deep geologic disposal of high-level radioactive waste and spent nuclear fuel; LBP-09-6, 69 NRC 367 (2009)

DELAY

in deciding the ripeness question, it is important to look to whether delayed resolution of issues would foreclose any relief from the present injury suffered by appellees; LBP-09-1, 69 NRC 11 (2009)

whether excessive safety design could lead to licensing uncertainty, unnecessary costs, or delays are not issues material to the high-level waste repository construction authorization proceeding; CLI-09-14, 69 NRC 580 (2009)

DEPARTMENT OF ENERGY

contentions that DOE lacks management integrity to operate a high-level waste geologic repository are impermissible challenges to the Nuclear Waste Policy Act and are therefore beyond the scope of the proceeding; CLI-09-14, 69 NRC 580 (2009)

DOE is not a "person" for purposes of AEA § 11s; CLI-09-14, 69 NRC 580 (2009)

SUBJECT INDEX

when DOE is before the Commission, a heightened standard applies for the admissibility of integrity contentions beyond what is imposed by 10 C.F.R. 2.309(f)(1); LBP-09-6, 69 NRC 367 (2009)

DESIGN

when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant; LBP-09-7, 69 NRC 613 (2009)

whether excessive safety design could lead to licensing uncertainty, unnecessary costs, or delays are not issues material to the high-level waste repository construction authorization proceeding; CLI-09-14, 69 NRC 580 (2009)

DESIGN BASIS EVENTS

events that could cause radioactive releases, including aircraft impact events, are required to be analyzed and designed against only if the probability of such events is above one in one million per year; LBP-09-2, 69 NRC 87 (2009)

DESIGN BASIS THREAT

the need for design features to guard against DBTs is outside the scope of a combined license proceeding because it is the subject of an ongoing rulemaking; LBP-09-2, 69 NRC 87 (2009)

DESIGN CERTIFICATION

all nuclear safety and environmental issues concerning severe accident mitigation design alternatives associated with NRC's environmental assessment for the AP1000 design and Appendix 1B of the generic Design Control Document are considered resolved by the Commission; LBP-09-2, 69 NRC 87 (2009)

an otherwise admissible contention raised in combined license hearing that challenges information in a design certification rulemaking should be referred to the Staff for resolution in the rulemaking and held in abeyance by the licensing board pending the outcome of the rulemaking; CLI-09-4, 69 NRC 80 (2009); CLI-09-8, 69 NRC 317 (2009); LBP-09-3, 69 NRC 139 (2009)

any contention directed at a design undergoing rulemaking review fails on its face to satisfy the admission requirements because all matters subject of a rulemaking are outside the scope of licensing proceedings; LBP-09-8, 69 NRC 736 (2009)

combined license applicants will also have to demonstrate that the site-specific parameters are bounded by the parameters developed for the certified design; LBP-09-2, 69 NRC 87 (2009)

Commission policy of permitting the conduct of an adjudicatory proceeding on a combined license that references a design certification that the Commission has not approved does not violate the Atomic Energy Act of 1954, 10 C.F.R. Part 52, or judicial decisions; CLI-09-4, 69 NRC 80 (2009)

design certification rulemaking and individual combined license adjudicatory proceedings may proceed simultaneously, and issues raised in an adjudicatory proceeding that are appropriately addressed in the generic design certification rulemaking are to be referred to the rulemaking for resolution; CLI-09-8, 69 NRC 317 (2009)

each combined license applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom; LBP-09-2, 69 NRC 87 (2009)

failure to frame a safety concern arising from the interaction of the proposed design certification document amendment with the existing certified standard design and/or a facility-specific provision of the COLA leaves the contention as an inadmissible challenge to the Part 52 regulatory framework; LBP-09-3, 69 NRC 139 (2009)

generic issues are to be resolved as part of the design certification rulemaking process, and any concerns related to those issues must be addressed in the rulemaking and not within the scope of a combined license proceeding; LBP-09-8, 69 NRC 736 (2009)

incorporation by reference in the combined license application is consistent with NRC rules when an applicant chooses to reference a standard design; CLI-09-8, 69 NRC 317 (2009); LBP-09-2, 69 NRC 87 (2009); LBP-09-8, 69 NRC 736 (2009)

the appropriate path for any petitioner's challenges to proposed reactor design revisions is through participation in those rulemaking proceedings, not through a combined license proceeding; LBP-09-2, 69 NRC 87 (2009)

the process for taking exemptions and departures from a certified design is set forth in 10 C.F.R. Part 52, App. D, § VIII; LBP-09-2, 69 NRC 87 (2009)

SUBJECT INDEX

the universe of potential contentions in a combined license proceeding includes site-specific contentions that do not implicate issues appropriately considered in a design certification rulemaking; CLI-09-8, 69 NRC 317 (2009)

DISCLOSURE

contention alleging foreign ownership of applicant, failure to disclose, and various ramifications of such ownership, is found to be admissible; LBP-09-1, 69 NRC 11 (2009)

petitioners' request for additional information on redacted portions of the combined license application is denied because the public record indicates the nature of the redacted information; CLI-09-4, 69 NRC 80 (2009)

DISCOVERY

to the extent applicant may be subject to unreasonable or burdensome discovery requests in the future, it is free to seek relief from the board, which has ample authority to prevent or modify unreasonable discovery demands; CLI-09-6, 69 NRC 128 (2009)

DOCUMENT PRODUCTION

a document's availability on the Internet does not authorize its exclusion from the Licensing Support Network; LBP-09-6, 69 NRC 367 (2009)

an affirmative demonstration of compliance with the Licensing Support Network requirements is not required in an intervention petition; LBP-09-6, 69 NRC 367 (2009)

each party or potential party to the high-level waste proceeding must continue to supplement the production of its documentary material on the Licensing Support Network; LBP-09-6, 69 NRC 367 (2009)

if petitioner is found not to be in substantial and timely compliance with the LSN requirements, that petitioner may request party status upon a subsequent showing of compliance, but any grant of a request is conditioned on accepting the status of the proceeding at the time of admission; LBP-09-6, 69 NRC 367 (2009)

perfection is not required and any production is bound to have some human mistakes; LBP-09-6, 69 NRC 367 (2009)

petitioner may not be granted party status in the high-level waste proceeding if it cannot demonstrate substantial and timely compliance with the requirements in 10 C.F.R. 2.1003 concerning the availability of documentary material on the Licensing Support Network; LBP-09-6, 69 NRC 367 (2009)

section 2.1009(b) requires certification to the Pre-License Application Presiding Officer that the party or potential party has complied with the implementation procedures of section 2.1009(a)(2) and that to the best of his or her knowledge, the documentary material specified in section 2.1003 has been identified and made electronically available; LBP-09-6, 69 NRC 367 (2009)

DOSE LIMITS

compliance with limits on radiological exposures, over necessarily long time periods, requires a performance assessment; LBP-09-6, 69 NRC 367 (2009)

the preclosure safety analysis for the high-level waste repository must demonstrate that in the event of Category 1 or Category 2 event sequences, prescribed dose limits will be met; CLI-09-14, 69 NRC 580 (2009)

DRAFT ENVIRONMENTAL IMPACT STATEMENT

for an early site permit, NRC Staff must address the matters specified in 10 C.F.R. 51.45; LBP-09-7, 69 NRC 613 (2009)

petitioners must raise NEPA contentions in response to the environmental report, rather than await the agency's DEIS; LBP-09-4, 69 NRC 170 (2009)

Staff is required to independently evaluate and be responsible for the reliability of all information used in the DEIS; LBP-09-7, 69 NRC 613 (2009)

DREDGING

adequacy of the final environmental impact statement discussion and analysis of the extent and duration of any dredging, the impacts on water quality, the disposal of any dredged material, and the impacts on aquatic biota as a result of any dredging is decided; LBP-09-7, 69 NRC 613 (2009)

EARLY SITE PERMIT APPLICATION

the required content of applicants environment report is described; LBP-09-7, 69 NRC 613 (2009)

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EARLY SITE PERMIT PROCEEDINGS

an environmental contention is not litigable in a combined license proceeding if it has already been resolved in an ESP proceeding; CLI-09-3, 69 NRC 68 (2009)

EARLY SITE PERMITS

NRC Staff is required to prepare an environmental impact statement in connection with the issuance of an ESP; LBP-09-7, 69 NRC 613 (2009)

NRC Staff must first prepare a draft environmental impact statement; LBP-09-7, 69 NRC 613 (2009)

ECONOMIC EFFECTS

the board erred in admitting a contention concerning the economic value of wetlands without requiring petitioners to demonstrate that the proposed licensing action or no-action alternative would have any effect on wetlands; CLI-09-9, 69 NRC 331 (2009)

ECONOMIC INJURY

economic interests of an organization representing nuclear utility members confer standing upon the organization; LBP-09-6, 69 NRC 367 (2009)

ECONOMIC INTERESTS

delaying the opening of the Yucca Mountain repository would inflict concrete harm on members of an organization who expend substantial sums to operate their own storage facilities; LBP-09-6, 69 NRC 367 (2009)

to establish standing, economic interests must be linked to potential radiological or environmental risks; LBP-09-6, 69 NRC 367 (2009)

ECONOMIC ISSUES

accuracy of project cost estimates only becomes relevant if an environmentally preferable alternative has been identified; LBP-09-2, 69 NRC 87 (2009)

NRC is not in the business of regulating the market strategies of licensees and leaves to them the ongoing business decisions that relate to costs and profit; LBP-09-2, 69 NRC 87 (2009)

quibbling over the details of an economic analysis amounts to standing NEPA on its head by asking that the license be rejected not due to environmental costs, but because the economic benefits are not as great as estimated; LBP-09-2, 69 NRC 87 (2009)

See also Decommissioning Funding; Financial Assurance

ELECTRONIC FILING

an electronic signature on a document serves as the signer's representation that the document has been subscribed in the capacity specified with full authority, that he or she has read it and knows the contents, that to the best of his or her knowledge, information, and belief the statements made in it are true, and that it is not interposed for delay; LBP-09-6, 69 NRC 367 (2009)

petitioners will not be denied the opportunity to participate in a proceeding because of an error that can easily be corrected and that has caused no prejudice to any other participant; LBP-09-4, 69 NRC 170 (2009)

EMERGENCY BACKUP POWER

licensees of plants located where there is a permanent population in excess of 15,000,000 within a 50-mile radius of the power plant are required to have backup power for the emergency notification system, including the emergency siren warning system; DD-09-1, 69 NRC 501 (2009)

system requirements for the backup power supply for the public alerting system are discussed; DD-09-1, 69 NRC 501 (2009)

EMERGENCY NOTIFICATION SYSTEM

licensees of plants located where there is a permanent population in excess of 15,000,000 within a 50-mile radius of the power plant are required to have backup power for the emergency notification system, including the emergency siren warning system; DD-09-1, 69 NRC 501 (2009)

petitioner's request under 10 C.F.R. 2.206 for suspension of operations and imposition of civil penalty for deficiencies in licensee's siren system is denied; DD-09-1, 69 NRC 501 (2009)

system requirements for the backup power supply for the public alerting system are discussed; DD-09-1, 69 NRC 501 (2009)

ENDANGERED SPECIES

direct, indirect, and cumulative impingement/entrainment and thermal effluent discharge impacts of the proposed cooling system intake and discharge structures on aquatic resources are discussed; LBP-09-7, 69 NRC 613 (2009)

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ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT

NRC appropriations shall not be used to pay the expenses of, or otherwise compensate, parties intervening in regulatory or adjudicatory proceedings; LBP-09-1, 69 NRC 11 (2009)

ENERGY POLICY ACT

licensees of plants located where there is a permanent population in excess of 15,000,000 within a 50-mile radius of the power plant are required to have backup power for the emergency notification system, including the emergency siren warning system; DD-09-1, 69 NRC 501 (2009)

ENERGY REORGANIZATION ACT

action of the Commission is determined by a majority vote of the members present; CLI-09-1, 69 NRC 1 (2009)

ENTRAINMENT

adequacy of the final environmental impact statement discussion and analysis of direct, indirect, and cumulative impingement/entrainment and thermal effluent discharge impacts of the proposed cooling system intake and discharge structures on aquatic resources is decided; LBP-09-7, 69 NRC 613 (2009)

ENVIRONMENTAL ANALYSIS

a conclusion that something is a "connected action" does not necessarily inform the type of impact analysis that is performed, whether direct, indirect, or cumulative; LBP-09-7, 69 NRC 613 (2009)

a NEPA analysis of the potential impacts of deliberate attacks on a spent fuel pool and analysis of alternatives to mitigate spent fuel pool accidents are beyond the scope of a license renewal proceeding and therefore inadmissible; CLI-09-10, 69 NRC 521 (2009)

agencies are given broad discretion in determining how thoroughly to analyze a particular subject, and may decline to examine issues that an agency in good faith considers remote and speculative or inconsequentially small; LBP-09-7, 69 NRC 613 (2009)

consideration of environmental impacts need not address every impact that could possibly result, but rather only those that are reasonably foreseeable or have some likelihood of occurring; LBP-09-7, 69 NRC 613 (2009)

federal agencies must take a hard look at the environmental impacts of a proposed action, as well as reasonable alternatives to that action; LBP-09-7, 69 NRC 613 (2009)

for impacts that are reasonably foreseeable, but for which the agency lacks complete information in its analysis, the agency must indicate that such information is lacking; LBP-09-7, 69 NRC 613 (2009)

if the accident sought to be considered is sufficiently unlikely, such that it can be characterized fairly as remote and speculative, then consideration under NEPA is not required as a matter of law; LBP-09-4, 69 NRC 170 (2009)

in its conclusions regarding the environmental impacts of a proposed action or alternative actions, the Staff uses as guidance a standard scheme to categorize or quantify the impacts; LBP-09-7, 69 NRC 613 (2009)

NEPA analyses are subject to a rule of reason, but it is necessary to have a criterion upon which reasonableness may be determined; LBP-09-4, 69 NRC 170 (2009)

NRC Staff may adopt the underlying scientific data and inferences from another agency's analysis without independent review, as long as it exercises independent judgment with respect to conclusions about the environmental impacts of the current proposed agency action; LBP-09-7, 69 NRC 613 (2009)

NRC's analysis in connection with licensing nuclear facilities should extend to related offsite construction projects such as connecting roads and railroad spurs; LBP-09-6, 69 NRC 367 (2009)

once the adverse environmental effects of a proposed action are adequately identified and evaluated, the agency is not constrained from deciding that other values outweigh the environmental costs; LBP-09-7, 69 NRC 613 (2009)

the National Environmental Policy Act is not an appropriate vehicle for exploring questions about the potential for a terrorist attack on a proposed nuclear facility; LBP-09-2, 69 NRC 87 (2009)

the three levels of impacts adopted NRC are described; LBP-09-7, 69 NRC 613 (2009)

the unavailability of information does not halt all government action, particularly when information may become available at a later time and can still be used to influence the agency's decision; LBP-09-7, 69 NRC 613 (2009)

when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant with regard to issues such as site selection and facility design; LBP-09-7, 69 NRC 613 (2009)

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ENVIRONMENTAL EFFECTS

Council on Environmental Quality regulations state that an environmental impact statement must address both direct and indirect effects of an action; LBP-09-7, 69 NRC 613 (2009)

direct effects are those caused by the federal action, and occurring at the same time and place as that action, while indirect effects are those caused by the action at a later time or more distant place, yet are still reasonably foreseeable; LBP-09-7, 69 NRC 613 (2009)

if federal agencies were free to ignore related environmental effects that they do not directly regulate, the National Environmental Policy Act would be meaningless; LBP-09-6, 69 NRC 367 (2009)

in an environmental analysis, agencies are required to consider both the context and intensity of impacts; LBP-09-7, 69 NRC 613 (2009)

it would be inconsistent with NEPA's rule of reason to require that the cumulative impacts analysis individually analyze the effects of remote facilities absent a demonstration that such additional effort would lead to a different conclusion; LBP-09-4, 69 NRC 170 (2009)

the questions of the safety and environmental impacts of onsite low-level waste storage are, in the Commission's view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions; CLI-09-3, 69 NRC 68 (2009)

ENVIRONMENTAL IMPACT STATEMENT

affidavits supporting environmental contentions in the high-level waste proceeding must set forth significant and substantial grounds for the claim that it is not practicable to adopt the environmental impact statement for the proposed repository prepared by DOE; LBP-09-6, 69 NRC 367 (2009)

agencies are required to consider both the context and intensity of impacts; LBP-09-7, 69 NRC 613 (2009)

alternative energy sources that will be dependent on future environmental safeguards and technological developments need not be considered in an environmental impact statement; LBP-09-7, 69 NRC 613 (2009)

an agency may rely on an EIS prepared by another federal agency if such reliance will aid in the presentation of issues, eliminate repetition, or reduce the length of an EIS; LBP-09-7, 69 NRC 613 (2009)

an EIS must disclose measures that will mitigate potential adverse environmental impacts; LBP-09-4, 69 NRC 170 (2009)

any EIS prepared in connection with a repository proposed to be constructed by DOE shall, to the extent practicable, be adopted by the NRC in connection with the issuance by the NRC of a construction authorization and license for such repository; LBP-09-6, 69 NRC 367 (2009)

consideration of alternatives need not discuss every possible alternative, but rather every reasonable alternative; LBP-09-7, 69 NRC 613 (2009)

Council on Environmental Quality regulations state that an EIS must address both direct and indirect effects of an action; LBP-09-7, 69 NRC 613 (2009)

NRC adjudicatory hearings are not EIS editing sessions; CLI-09-11, 69 NRC 529 (2009)

NRC Staff is required to prepare an EIS in connection with the issuance of an early site permit; LBP-09-7, 69 NRC 613 (2009)

NRC Staff is required to present its position on whether it is practicable to adopt DOE's environmental impact statement for Yucca Mountain without supplementation; LBP-09-6, 69 NRC 367 (2009)

NRC Staff must first prepare a draft environmental impact statement for an early site permit; LBP-09-7, 69 NRC 613 (2009)

NRC's adoption of any EIS prepared in connection with a repository shall be deemed to also satisfy the responsibilities of NRC under NEPA and no further consideration shall be required except any independent responsibilities of NRC to protect public health under the Atomic Energy Act; LBP-09-6, 69 NRC 367 (2009)

reasonable alternatives do not include alternatives that are impractical, that present unique problems, or that cause extraordinary costs; LBP-09-7, 69 NRC 613 (2009)

remote or speculative environmental effects need not be discussed; LBP-09-7, 69 NRC 613 (2009)

technologically unproven alternatives need not be considered; LBP-09-7, 69 NRC 613 (2009)

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the draft EIS is distributed for public comment and, based on the comments received, a review of information provided by the applicant, and supplemental independent information and analysis, the Staff prepares and issues a final EIS; LBP-09-7, 69 NRC 613 (2009)

the Nuclear Waste Policy Act's mandate that the EIS be adopted by NRC to the extent practicable is intended to avoid duplication of the environmental review process but does not permit NRC to premise a construction-authorization or licensing decision upon an EIS that does not meet the substantive requirements of NEPA or the Council on Environmental Quality's regulations; LBP-09-6, 69 NRC 367 (2009)

the only relevant test for a claim that it is not practicable to adopt the DOE environmental impact statement is whether the supporting affidavit presents significant and substantial new information or new considerations sufficient to render such EIS inadequate; LBP-09-6, 69 NRC 367 (2009)

the scope of admissible issues in the high-level waste repository proceeding is discussed; LBP-09-6, 69 NRC 367 (2009)

to determine the scope of EISs, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts; LBP-09-7, 69 NRC 613 (2009)

when Staff has prepared a DEIS or FEIS by the time environmental contentions come before a licensing board on the merits, such contentions are appropriately treated as challenges to the EIS; LBP-09-7, 69 NRC 613 (2009)

See also Draft Environmental Impact Statement

ENVIRONMENTAL ISSUES

affidavits supporting environmental contentions in the high-level waste proceeding must set forth significant and substantial grounds for the claim that it is not practicable to adopt the environmental impact statement for the proposed repository prepared by DOE; LBP-09-6, 69 NRC 367 (2009)

an environmental contention is not litigable in a combined license proceeding if it has already been resolved in an early site permit proceeding; CLI-09-3, 69 NRC 68 (2009)

intervenors are required to file contentions in the first instance based on the applicant's environmental report; LBP-09-7, 69 NRC 613 (2009)

when Staff has prepared a DEIS or FEIS by the time environmental contentions come before a licensing board on the merits, such contentions are appropriately treated as challenges to the EIS; LBP-09-7, 69 NRC 613 (2009)

ENVIRONMENTAL PROTECTION AGENCY

EPA is responsible for promulgating standards for environmental protection, and NRC is tasked with promulgating the criteria it will apply in the licensing proceeding; LBP-09-6, 69 NRC 367 (2009)

NRC's criteria must not be inconsistent with EPA's environmental protection standards; LBP-09-6, 69 NRC 367 (2009)

ENVIRONMENTAL REPORT

a reviewing agency determines whether an alternative is appropriate by looking at the objectives (i.e., purpose and need) of a project sponsor; LBP-09-2, 69 NRC 87 (2009)

accuracy of project cost estimates only becomes relevant if an environmentally preferable alternative has been identified; LBP-09-2, 69 NRC 87 (2009)

agencies must consider alternatives that are appropriate to recommended courses of action; LBP-09-2, 69 NRC 87 (2009)

applicant for an early site permit must submit an environmental report containing a description of the proposed action, a statement of its purposes, and a description of the environment affected; LBP-09-7, 69 NRC 613 (2009)

applicants must provide a plant-specific analysis of all Category 2 issues; CLI-09-10, 69 NRC 521 (2009)

as long as applicant has not set forth an unreasonably narrow objective of its project, NRC adheres to the principle that when the purpose is to accomplish one thing, it makes no sense to consider alternative ways by which another thing might be accomplished; LBP-09-2, 69 NRC 87 (2009)

because Category 1 issues already have been reviewed on a generic basis for all plants, an applicant's environmental report need not provide a site-specific analysis of these issues; CLI-09-10, 69 NRC 521 (2009)

intervenors are required to file environmental contentions in the first instance based on the applicant's ER; LBP-09-7, 69 NRC 613 (2009)

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NEPA charges federal agencies with weighing the environmental effects and impacts of the proposed project and its alternatives against each other and balancing those effects against the benefits of each such project; LBP-09-2, 69 NRC 87 (2009)

NRC's obligations under the National Environmental Policy Act focus on the adjective "environmental," and NEPA does not require the agency to assess every impact or effect, but only the impact or effect on the environment; LBP-09-2, 69 NRC 87 (2009)

petitioners must raise NEPA contentions in response to the ER, rather than await the agency's draft environmental impact statement; LBP-09-4, 69 NRC 170 (2009)

quibbling over the details of an economic analysis amounts to standing NEPA on its head by asking that the license be rejected not due to environmental costs, but because the economic benefits are not as great as estimated; LBP-09-2, 69 NRC 87 (2009)

the draft environmental impact statement may rely in part on the ER, but agency regulations require the Staff to independently evaluate and be responsible for the reliability of all information used in the DEIS; LBP-09-7, 69 NRC 613 (2009)

ENVIRONMENTAL REVIEW

merely contemplating a certain action, even if accompanied by research or study, does not necessarily constitute a proposal for a major federal action requiring NEPA review; CLI-09-14, 69 NRC 580 (2009)

neither the number nor location of public meetings required to satisfy an agency's public review process for its environmental document is specified; LBP-09-6, 69 NRC 367 (2009)

ERROR

a board erred in admitting a contention on adverse health effects of exposure to arsenic, where petitioners had not laid a foundation and their arguments were speculative; CLI-09-9, 69 NRC 331 (2009)

a board erred when it disregarded the rule that a reply cannot expand the scope of the arguments set forth in the original hearing request; CLI-09-12, 69 NRC 535 (2009)

petitioners' contention that NRC Staff has not consulted with an affected Indian tribe is premature because it was filed prior to the time for the Staff to act, and the board erred in admitting it; CLI-09-9, 69 NRC 331 (2009)

the board erred in admitting a contention concerning the economic value of wetlands without requiring petitioners to demonstrate that the proposed licensing action or no-action alternative would have any effect on wetlands; CLI-09-9, 69 NRC 331 (2009)

the Commission cannot find clear error in a board's failing to acknowledge an argument that was not brought to its attention and to which the petitioners had no opportunity to respond; CLI-09-12, 69 NRC 535 (2009)

the Commission defers to board rulings on contention admissibility in the absence of clear error or abuse of discretion; CLI-09-14, 69 NRC 580 (2009)

EVIDENCE

a new issue is raised only when the argument itself, as distinct from its chances of success, was not apparent at the time of the application; CLI-09-7, 69 NRC 235 (2009)

new information concerning safety may be new evidence, but not necessarily raise a new issue; CLI-09-7, 69 NRC 235 (2009)

EXEMPTIONS

combined license applicants will also have to demonstrate that the site-specific parameters are bounded by the parameters developed for the certified design; LBP-09-2, 69 NRC 87 (2009)

each combined license applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom; LBP-09-2, 69 NRC 87 (2009)

the process for taking exemptions and departures from a certified design is set forth in 10 C.F.R. Part 52, App. D, § VIII; LBP-09-2, 69 NRC 87 (2009)

EXPERT WITNESSES

credibility of a witness testifying based on technical expertise is not the same as the credibility of an eyewitness to a past event; CLI-09-7, 69 NRC 235 (2009)

the rule for Subpart G procedures explicitly applies to eyewitnesses, not expert witnesses; CLI-09-7, 69 NRC 235 (2009)

EXPORT LICENSE PROCEEDINGS

standing as of right is not available but the Commission has exercised its discretion to hold an open legislative-type hearing; LBP-09-1, 69 NRC 11 (2009)

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there appear to be special considerations, including interaction with the Executive Branch and other agencies and time limits on decisions, that may distinguish these proceedings from other NRC adjudicatory proceedings; LBP-09-1, 69 NRC 11 (2009)

EXPORT LICENSES

petitioners' claim that a foreign-owned company would be more likely than a U.S.-owned company to export its product overseas falls outside the scope of a materials license amendment proceeding, where the applicant had not applied for a license to export recovered uranium; CLI-09-12, 69 NRC 535 (2009)

EXTENSION OF TIME

difficulties in coordinating action among volunteers and large public interest organizations and the challenge of simultaneously preparing for an environmental scoping meeting while drafting contentions does not constitute good cause necessary to justify an extension of the deadline to file hearing requests or petitions to intervene; CLI-09-4, 69 NRC 80 (2009)

the Commission or presiding officer may extend a time limit upon a showing of good cause; CLI-09-4, 69 NRC 80 (2009)

the newness of a deadline, along with petitioners' companion requests for additional resources to support their requests for safeguards information justify a 10-day extension to request access to the information; CLI-09-4, 69 NRC 80 (2009)

EYEWITNESSES

credibility of a witness testifying based on technical expertise is not the same as the credibility of an eyewitness to a past event; CLI-09-7, 69 NRC 235 (2009)

the rule for Subpart G procedures explicitly applies to eyewitnesses, not expert witnesses; CLI-09-7, 69 NRC 235 (2009)

FAIRNESS

when the unique circumstances of a case could result in the compromise of a participant's hearing rights, the Commission has taken action to ensure that hearings are fair and accommodate the rights of participants; CLI-09-13, 69 NRC 575 (2009)

FEEES

even if the Commission could waive the application fee for access to safeguards information, the mere fact that petitioners are public interest organizations provides no special reason for departing from well-established NRC practice; CLI-09-4, 69 NRC 80 (2009)

NRC is explicitly prohibited by law from paying the expenses of or otherwise compensating intervenors, and thus cannot grant petitioners funds to prepare requests for access to safeguards information or sensitive unclassified nonsafeguards information; CLI-09-4, 69 NRC 80 (2009)

the fee for access to safeguards information is used by NRC to pay the costs it incurs in determining whether the individual should be granted access to SGI; CLI-09-4, 69 NRC 80 (2009)

FILINGS

petitioners must raise NEPA contentions in response to the environmental report, rather than await the agency's draft environmental impact statement; LBP-09-4, 69 NRC 170 (2009)

petitioners will not be denied the opportunity to participate in a proceeding because of an error that can easily be corrected and that has caused no prejudice to any other participant; LBP-09-4, 69 NRC 170 (2009)

See also Electronic Filing

FINAL ENVIRONMENTAL IMPACT STATEMENT

adequacy of discussion and analysis of direct, indirect, and cumulative impingement/entrainment and thermal effluent discharge impacts of the proposed cooling system intake and discharge structures on aquatic resources is decided; LBP-09-7, 69 NRC 613 (2009)

adequacy of the discussion and analysis of the alternative of implementing a dry cooling system for the proposed units is decided; LBP-09-7, 69 NRC 613 (2009)

adequacy of the discussion and analysis of the extent and duration of any dredging, the impacts on water quality, the disposal of any dredged material, and the impacts on aquatic biota as a result of any dredging is decided; LBP-09-7, 69 NRC 613 (2009)

boards must decide whether the alternatives discussion is sufficiently complete to aid the Commission in developing and exploring appropriate alternatives to recommended courses of action in any proposal that

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- involves unresolved conflicts concerning alternative uses of available resources; LBP-09-7, 69 NRC 613 (2009)
- even if an EIS prepared by the Staff is found to be inadequate in certain respects, the board's findings, as well as the adjudicatory record, become, in effect, part of the FEIS; LBP-09-7, 69 NRC 613 (2009)
- FINANCIAL ASSURANCE**
- applicant is permitted to choose a single method or a combination of methods to demonstrate financial assurance; LBP-09-4, 69 NRC 170 (2009)
- regulations and guidance documents fail to state when proof of applicant's financial assurance for decommissioning funding is required; LBP-09-4, 69 NRC 170 (2009)
- there is no provision that requires an applicant or licensee to choose one form of decommissioning assurance over another; LBP-09-4, 69 NRC 170 (2009)
- FINDINGS OF FACT**
- a party's failure to raise a matter in its proposed findings of fact and conclusions of law seemingly waives these items as grounds for its challenge to the final environmental impact statement; LBP-09-7, 69 NRC 613 (2009)
- although the Commission has authority to make *de novo* findings of fact, it does not do so where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-09-7, 69 NRC 235 (2009)
- the Commission's standard of clear error for overturning a board's factual finding is quite high, and the Commission defers to its boards' findings unless clearly erroneous, i.e., not even plausible in light of the record viewed in its entirety; CLI-09-7, 69 NRC 235 (2009)
- unless there is a strong reason to believe that in a particular case a board has overlooked or misunderstood important evidence, the Commission will defer to its findings of fact; CLI-09-7, 69 NRC 235 (2009)
- FOREIGN OWNERSHIP**
- a domestic corporation in which a foreign entity has an ownership interest is considered controlled or dominated if its will is subjugated to the will of the foreign entity on primary safety matters or access policies that may be inimical to the national defense and security of the United States; LBP-09-4, 69 NRC 170 (2009)
- a license will not be prohibited if the foreign entity's influence is on other licensing activities not of primary concern to the NRC, or if the corporation follows NRC-implemented conditions to isolate safety matters from foreign control; LBP-09-4, 69 NRC 170 (2009)
- citizenship of an applicant may be considered in the context of a license application; CLI-09-9, 69 NRC 331 (2009)
- contention alleging foreign ownership of applicant, failure to disclose, and various ramifications of such ownership is found to be admissible; LBP-09-1, 69 NRC 11 (2009)
- issuance of a materials license to a licensee wholly owned by a foreign parent is not prohibited; CLI-09-12, 69 NRC 535 (2009)
- neither a uranium enrichment facility nor a nuclear power plant may be owned, controlled, or dominated by a foreign entity; CLI-09-9, 69 NRC 331 (2009)
- NRC case law and precedent do not prohibit considering the percentage of foreign ownership as one element in NRC's overall analysis and finding of whether the foreign entity is a threat to the national defense and security of the United States; LBP-09-4, 69 NRC 170 (2009)
- NRC has not established an ownership interest threshold or plateau above which a foreign entity is presumed to have control or domination over the applicant; LBP-09-4, 69 NRC 170 (2009)
- petitioners' claim that a foreign-owned company would be more likely than a U.S.-owned company to export its product overseas falls outside the scope of a materials license amendment proceeding, where the applicant had not applied for a license to export recovered uranium; CLI-09-12, 69 NRC 535 (2009)
- the Atomic Energy Act restriction focuses on safeguarding access to nuclear materials, a security issue, and not on other licensing matters; LBP-09-4, 69 NRC 170 (2009)
- the common defense and security standard refers principally to the safeguarding of special nuclear material, the absence of foreign control over the applicant, the protection of restricted data, and the availability of special nuclear material for defense needs; CLI-09-9, 69 NRC 331 (2009)

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the decision of whether to grant a license to a corporation hinges on whether the applicant is being controlled or dominated by the foreign entity; LBP-09-4, 69 NRC 170 (2009)

the requirement that materials licenses not be inimical to the common defense and security has been interpreted as referring to the absence of foreign control over the applicant; LBP-09-1, 69 NRC 11 (2009)

there is no statutory or regulatory bar, per se, on a foreign-owned or -controlled company holding a source materials license, whether as a licensee or as a parent entity; CLI-09-9, 69 NRC 331 (2009)

FUEL FABRICATION FACILITY LICENSING

applicant is not required to "request" a completion finding, or call for a single action, such as an inspection, on the part of the Staff that would serve as a discrete starting point for revising a contention; CLI-09-2, 69 NRC 55 (2009)

because intervenors' inability to satisfy the contention admissibility rules is due to factors beyond their control, the Commission declines to require them to meet both the strict late-filing requirements and the even stricter reopening standards if they identify safety issues during the upcoming years of ongoing construction; CLI-09-2, 69 NRC 55 (2009)

GENERIC ISSUES

because Category 1 issues already have been reviewed on a generic basis for all plants, an applicant's environmental report need not provide a site-specific analysis of these issues; CLI-09-10, 69 NRC 521 (2009)

issues resolved as part of the design certification rulemaking process and any concerns related to those issues are not within the scope of a combined license proceeding; LBP-09-8, 69 NRC 736 (2009)

NRC rules recognize the possibility of new and significant information calling into question prior generic findings, and a petition for rulemaking is one means to alert the Commission to new information that may render a GEIS finding incorrect; CLI-09-10, 69 NRC 521 (2009)

GOVERNMENT PARTIES

the Commission's decision not to entertain a state intervenor's integrity and competence contentions in the high-level waste repository proceeding is consistent with its practice of extending comity to other governmental entities; CLI-09-14, 69 NRC 580 (2009)

GROUNDWATER CONTAMINATION

contention based on a recent study suggesting a link between low levels of arsenic in drinking water and diabetes is rejected; CLI-09-12, 69 NRC 535 (2009)

health effects of arsenic contamination of drinking water from mining operations is an admissible issue in a materials license amendment proceeding; LBP-09-1, 69 NRC 11 (2009)

HEALTH AND SAFETY

after completion of decommissioning, neither licensee nor the NRC retains any continuing obligation or jurisdiction, respectively, with respect to a site, unless new information shows that the Part 20 criteria were not met and the residual radioactivity remaining on the site could result in a significant threat to public health and safety; CLI-09-1, 69 NRC 1 (2009)

interim protective measures to prevent contamination from slag and baghouse dust piles until final decommissioning is completed are discussed; CLI-09-1, 69 NRC 1 (2009)

offsite health and safety impacts caused by onsite activities can support the admissibility of a contention; LBP-09-6, 69 NRC 367 (2009)

HEALTH EFFECTS

a board erred in admitting a contention on adverse health effects of exposure to arsenic, where petitioners had not laid a foundation and their arguments were speculative; CLI-09-9, 69 NRC 331 (2009)

contention based on a recent study suggesting a link between low levels of arsenic in drinking water and diabetes is rejected; CLI-09-12, 69 NRC 535 (2009)

potential for diabetes and pancreatic cancer from arsenic contamination of drinking water from mining operations is an admissible issue in a materials license amendment proceeding; LBP-09-1, 69 NRC 11 (2009)

HEARING PROCEDURES

an immediate right to appeal a board ruling selecting a hearing procedure is provided; CLI-09-12, 69 NRC 535 (2009)

requirements for applying Subpart G to a particular proceeding are set out in 10 C.F.R. 2.700; CLI-09-7, 69 NRC 235 (2009)

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HEARING REQUESTS

difficulties in coordinating action among volunteers and large public interest organizations and the challenge of simultaneously preparing for an environmental scoping meeting while drafting contentions does not constitute good cause necessary to justify an extension of the deadline to file hearing requests or petitions to intervene; CLI-09-4, 69 NRC 80 (2009)

HEARING RIGHTS

standing as of right is not available in export license proceedings but the Commission has exercised its discretion to hold an open legislative-type hearing; LBP-09-1, 69 NRC 11 (2009)

the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding; LBP-09-1, 69 NRC 11 (2009)

the proximity presumption does not permit persons with no actual or imminent claim of injury to obtain a hearing; LBP-09-4, 69 NRC 170 (2009)

when the unique circumstances of a case could result in the compromise of a participant's hearing rights, the Commission has taken action to ensure that hearings are fair and accommodate the rights of participants; CLI-09-13, 69 NRC 575 (2009)

with respect to combined licenses, interested persons may request a hearing as to the adequacy of construction after issuance of a combined license; CLI-09-2, 69 NRC 55 (2009)

HIGH-LEVEL WASTE REPOSITORY

a preclosure safety analysis must be performed and it must demonstrate, among other things, that the requirements of 10 C.F.R. 63.111(a) are met; CLI-09-14, 69 NRC 580 (2009)

any performance assessment used to demonstrate compliance with 10 C.F.R. 63.113 must consider alternative conceptual models; LBP-09-6, 69 NRC 367 (2009)

“repository” is defined as any system licensed by the Commission that is intended to be used for, or may be used for the permanent deep geologic disposal of high-level radioactive waste and spent nuclear fuel; LBP-09-6, 69 NRC 367 (2009)

the Commission may authorize construction if the application provides a reasonable assurance of preclosure safety and a reasonable expectation of postclosure safety; LBP-09-6, 69 NRC 367 (2009)

the geologic repository operations area must meet the requirements of 10 C.F.R. Part 20; CLI-09-14, 69 NRC 580 (2009)

the performance assessment must meet a number of very specific requirements; LBP-09-6, 69 NRC 367 (2009)

the preclosure safety analysis must demonstrate that in the event of Category 1 or Category 2 event sequences, prescribed dose limits will be met; CLI-09-14, 69 NRC 580 (2009)

throughout the repository development program, the Secretary and other agencies must meet the general requirements and the spirit of NEPA; LBP-09-6, 69 NRC 367 (2009)

HIGH-LEVEL WASTE REPOSITORY APPLICATION

a genuine dispute exists despite the fact that character or integrity is not required by regulation to be addressed in the license application; LBP-09-6, 69 NRC 367 (2009)

DOE is precluded from the need to consider alternatives to geologic disposal, or alternative to the Yucca Mountain site; LBP-09-6, 69 NRC 367 (2009)

there is no legal requirement that the Staff find that the proposed design is not too conservative or that the associated costs are not excessive as part of its safety review of the construction authorization application; CLI-09-14, 69 NRC 580 (2009)

HIGH-LEVEL WASTE REPOSITORY PROCEEDING

a board may grant party status only to a single representative for each affected federally recognized Indian tribe; LBP-09-6, 69 NRC 367 (2009)

a state can meet the requirements for standing as a matter of right, based on the threat posed by transportation of radioactive waste through that state; LBP-09-6, 69 NRC 367 (2009)

affidavits supporting NEPA contentions must set forth factual and/or technical bases for the claim that it is not practicable to adopt the DOE environmental impact statement; LBP-09-6, 69 NRC 367 (2009)

an affected federally recognized Indian tribe is automatically entitled to participate in the proceeding; LBP-09-6, 69 NRC 367 (2009)

an affirmative demonstration of compliance with the Licensing Support Network requirements is not required in an intervention petition; LBP-09-6, 69 NRC 367 (2009)

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an organization seeking to intervene in a representational capacity must demonstrate that the licensing action will affect at least one of its members, identify that member by name and address, and show that it is authorized by that member to request a hearing on his or her behalf; LBP-09-6, 69 NRC 367 (2009)

any affected unit of local government need not address standing in the high-level waste proceeding, but rather shall be considered a party provided that it files at least one admissible contention in accordance with 10 C.F.R. 2.309(f); LBP-09-6, 69 NRC 367 (2009)

any environmental impact statement prepared in connection with a repository proposed to be constructed by DOE shall, to the extent practicable, be adopted by the NRC in connection with the issuance by the NRC of a construction authorization and license for such repository; LBP-09-6, 69 NRC 367 (2009)

because the significance of the current capacity limitation for the deep waste repository is unclear, a contention is admitted as a legal issue; LBP-09-6, 69 NRC 367 (2009)

contentions that DOE lacks management integrity to operate a high-level waste geologic repository are impermissible challenges to the Nuclear Waste Policy Act and are therefore beyond the scope of the proceeding; CLI-09-14, 69 NRC 580 (2009)

criteria and procedures of 10 C.F.R. 2.326 are either irrelevant or redundant; LBP-09-6, 69 NRC 367 (2009)

each factual NEPA contention must be accompanied by one or more affidavits, but a purely legal-issue contention cannot logically require affidavit support, as by definition such a contention alleges no facts that require support; LBP-09-6, 69 NRC 367 (2009)

each party or potential party must continue to supplement the production of its documentary material on the Licensing Support Network; LBP-09-6, 69 NRC 367 (2009)

if petitioner is found not to be in substantial and timely compliance with the LSN requirements, that petitioner may request party status upon a subsequent showing of compliance, but any grant of a request is conditioned on accepting the status of the proceeding at the time of admission; LBP-09-6, 69 NRC 367 (2009)

in determining whether an individual or organization should be granted party status as of right, NRC applies judicial standing concepts; LBP-09-6, 69 NRC 367 (2009)

in ruling on petitions to intervene, boards must consider any failure of the petitioner to participate as a potential party in the pre-license application phase under 10 C.F.R. Part 2, Subpart J; LBP-09-6, 69 NRC 367 (2009)

intervention is permitted by the state and local governmental body in which the geologic repository operations area is located, and by any affected federally recognized Indian tribe; LBP-09-6, 69 NRC 367 (2009)

intervention petitioner must establish that it has standing, be able to demonstrate substantial and timely Licensing Support Network compliance, and proffer at least one admissible contention; LBP-09-6, 69 NRC 367 (2009)

NRC must undertake its own assessment of DOE's environmental documents to determine whether it is practicable to adopt them; LBP-09-6, 69 NRC 367 (2009)

NRC Staff is required to present its position on whether it is practicable to adopt DOE's environmental impact statement for Yucca Mountain without supplementation; LBP-09-6, 69 NRC 367 (2009)

NRC's adoption of any environmental impact statement prepared in connection with a repository shall be deemed to also satisfy the responsibilities of NRC under NEPA and no further consideration shall be required except any independent responsibilities of NRC to protect public health under the Atomic Energy Act; LBP-09-6, 69 NRC 367 (2009)

once petitioners LSN compliance has been raised in an answer to an intervention petition, petitioner then has the opportunity to respond to the challenges in its reply; LBP-09-6, 69 NRC 367 (2009)

petitioner may not be granted party status if it cannot demonstrate substantial and timely compliance with the requirements in 10 C.F.R. 2.1003 concerning the availability of documentary material on the Licensing Support Network; LBP-09-6, 69 NRC 367 (2009)

petitioner organizations have established standing based on their members' proximity to transportation routes, even where it was not possible to predict with accuracy which of its members were most likely to be harmed or the extent of the damage; LBP-09-6, 69 NRC 367 (2009)

section 2.1009(b) requires certification to the Pre-License Application Presiding Officer that the party or potential party has complied with the implementation procedures of section 2.1009(a)(2) and that, to the

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- best of his or her knowledge, the documentary material specified in section 2.1003 has been identified and made electronically available; LBP-09-6, 69 NRC 367 (2009)
- site characterization and environmental impact statement approval process are discussed in context of the scope of admissible issues; LBP-09-6, 69 NRC 367 (2009)
- the Commission conferred standing as of right on certain parties; LBP-09-6, 69 NRC 367 (2009)
- the member of a organization that seeks standing must qualify for standing in his or her own right, and the interests that the organization seeks to protect must be germane to its own purpose; LBP-09-6, 69 NRC 367 (2009)
- the Nuclear Waste Policy Act's mandate that the environmental impact statement be adopted by NRC to the extent practicable is intended to avoid duplication of the environmental review process but does not permit NRC to premise a construction-authorization or licensing decision upon an EIS that does not meet the substantive requirements of the NEPA or the Council on Environmental Quality's NEPA regulations; LBP-09-6, 69 NRC 367 (2009)
- the only relevant test for a claim that it is not practicable to adopt the DOE environmental impact statement is whether the supporting affidavit presents significant and substantial new information or new considerations sufficient to render such EIS inadequate; LBP-09-6, 69 NRC 367 (2009)
- the presiding officer in the high-level waste proceeding shall resolve disputes concerning adoption of the DOE environmental impact statement by using, to the extent possible, the criteria and procedures that are followed in ruling on motions to reopen; LBP-09-6, 69 NRC 367 (2009)
- when an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization; LBP-09-6, 69 NRC 367 (2009)
- when its Licensing Support Network compliance is challenged, petitioner need only make a straightforward statement in its reply that it has complied with the LSN requirements; LBP-09-6, 69 NRC 367 (2009)
- where a petitioner is not conferred automatic standing, a petition to intervene must provide information supporting petitioner's claim to standing, including the nature of petitioner's right under the governing statutes to be made a party, the nature of petitioner's interest in the proceeding, and the possible effect of any decision or order on petitioner's interest; LBP-09-6, 69 NRC 367 (2009)
- whether excessive safety design could lead to licensing uncertainty, unnecessary costs, or delays are not material issues; CLI-09-14, 69 NRC 580 (2009)
- HYDRAULIC ZONE OF INFLUENCE**
- direct, indirect, and cumulative impingement/entrainment and thermal effluent discharge impacts of a proposed cooling system intake and discharge structures on aquatic resources are discussed; LBP-09-7, 69 NRC 613 (2009)
- IMPINGEMENT**
- adequacy of the final environmental impact statement discussion and analysis of direct, indirect, and cumulative impingement/entrainment and thermal effluent discharge impacts of a proposed cooling system intake and discharge structures on aquatic resources is decided; LBP-09-7, 69 NRC 613 (2009)
- INCORPORATION BY REFERENCE**
- applicant for a combined license is expressly authorized by NRC's regulations to incorporate by reference a certified design in its license application; CLI-09-8, 69 NRC 317 (2009); LBP-09-2, 69 NRC 87 (2009); LBP-09-8, 69 NRC 736 (2009)
- INJUNCTIVE RELIEF**
- even if injury sufficient to show an existing case or controversy is established, this does not confer standing with regard to injunctive relief; LBP-09-1, 69 NRC 11 (2009)
- INJURY IN FACT**
- even if injury sufficient to show an existing case or controversy is established, this does not confer standing with regard to injunctive relief; LBP-09-1, 69 NRC 11 (2009)
- the increased risk of living within 50 miles of a nuclear power plant constitutes injury-in-fact, is traceable to the challenged action, and is likely to be redressed by a favorable decision that either denies a license or mandates compliance with legal requirements that protect the interests of the petitioners; LBP-09-4, 69 NRC 170 (2009)

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the plausible-chain-of-causation standard requires not that the potential harm to petitioner flow directly from the proposed action, but that the petitioner show that the chain of causation is plausible; CLI-09-12, 69 NRC 535 (2009)

the requirement to show actual injury derives ultimately from the doctrine of standing, a constitutional principle that prevents courts of law from undertaking tasks assigned to the political branches; LBP-09-1, 69 NRC 11 (2009)

See also Irreparable Injury

INTEREST

in a materials licensing proceeding, petitioners have the burden to show a specific and plausible means whereby the licensing decision may harm them; CLI-09-9, 69 NRC 331 (2009)

petitioners need not show a nexus between interest upon which standing is based and the substance of their proposed contentions; CLI-09-9, 69 NRC 331 (2009)

INTERESTED GOVERNMENTAL ENTITY

although interested governmental participants are afforded many rights and responsibilities with respect to participation in a proceeding, they are limited to participation on admitted contentions; LBP-09-6, 69 NRC 367 (2009)

an interested state or local governmental body which has not been admitted as a party under 10 C.F.R. 2.309 shall be afforded a reasonable opportunity to participate in a hearing; LBP-09-2, 69 NRC 87 (2009)

INTERESTED STATE PARTICIPATION

a state could seek to have licensing proceedings suspended pending an NRC decision on its rulemaking petition if it participated in the proceedings as an interested state; CLI-09-10, 69 NRC 521 (2009)

INTERLOCUTORY RULINGS

if necessary, rulings may be reviewed on appeals from partial initial decisions or other final appealable orders; CLI-09-6, 69 NRC 128 (2009)

the possibility that an interlocutory ruling may be wrong does not in itself justify interlocutory review; CLI-09-6, 69 NRC 128 (2009)

INTERVENORS

NRC appropriations shall not be used to pay the expenses of, or otherwise compensate, parties intervening in regulatory or adjudicatory proceedings; LBP-09-1, 69 NRC 11 (2009)

NRC is explicitly prohibited by law from paying the expenses of or otherwise compensating intervenors, and thus cannot grant petitioners funds to prepare requests for access to safeguards information or sensitive unclassified nonsafeguards information; CLI-09-4, 69 NRC 80 (2009)

the ultimate burden of proof on the question of whether a permit or license should be issued is on the applicant, but the party contending that the permit or license should be denied has the burden of going forward with evidence to buttress that contention; CLI-09-7, 69 NRC 235 (2009)

there is an ironclad obligation to regularly and diligently search publicly available NRC or applicant documents for information relevant to intervenor's contentions; CLI-09-2, 69 NRC 55 (2009)

INTERVENTION

NRC intervention rules are strict by design; LBP-09-1, 69 NRC 11 (2009)

petitioner must establish that it has standing, be able to demonstrate substantial and timely Licensing Support Network compliance, and proffer at least one admissible contention; LBP-09-6, 69 NRC 367 (2009)

to be admitted as a party in an NRC proceeding, a petitioner must establish standing by satisfying the requirements set forth in 10 C.F.R. 2.309(d) and proffer an admissible contention; LBP-09-2, 69 NRC 87 (2009)

INTERVENTION, DISCRETIONARY

intervention is denied where petitioner has filed no contentions of its own, but the contention requirement might be viewed as ordinarily inapplicable to enforcement proceedings; LBP-09-6, 69 NRC 367 (2009)

intervention is denied where petitioner has not demonstrated how its tangible interests would be affected by the proceeding, is essentially seeking only to support the subject of the enforcement action, and provides what is deemed insufficient information about the contribution its experts could be expected to make; LBP-09-6, 69 NRC 367 (2009)

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intervention is granted where petitioner's interests are within the zone of interests related to the proceeding and its extensive participation in similar proceedings in the past would provide valuable insight in developing a sound record; LBP-09-6, 69 NRC 367 (2009)

INTERVENTION PETITIONS

a licensing board must assess an intervention petition to determine whether the elements of standing are met even if there are no objections to a petitioner's standing; LBP-09-3, 69 NRC 139 (2009)

an affirmative demonstration of compliance with the Licensing Support Network requirements is not required in an intervention petition; LBP-09-6, 69 NRC 367 (2009)

at the appropriate point in the overall COLA/DCD process, an interested party will have the opportunity to petition for intervention to raise matters that are material to the licensing decision the NRC must make regarding the proposed nuclear units; LBP-09-2, 69 NRC 87 (2009)

difficulties in coordinating action among volunteers and large public interest organizations and the challenge of simultaneously preparing for an environmental scoping meeting while drafting contentions does not constitute good cause necessary to justify an extension of the deadline to file hearing requests or petitions to intervene; CLI-09-4, 69 NRC 80 (2009)

in assessing a petition to determine whether the elements of standing are met, the board is to construe the petition in favor of the petitioner; LBP-09-3, 69 NRC 139 (2009)

in evaluating petitions, licensing boards are not free to ignore the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); CLI-09-8, 69 NRC 317 (2009)

petitioner must state the nature and extent of his/her/its property, financial, or other interest in the proceeding, a concept separate and apart from that of what constitutes a contention; LBP-09-1, 69 NRC 11 (2009)

petitioner's reply must narrowly focus upon the legal and factual arguments first presented in its petition and cannot be used as a vehicle to remedy a very deficient petition to which opposing parties have no opportunity to respond; LBP-09-6, 69 NRC 367 (2009)

where petitioners are not conferred automatic standing in the high-level waste proceeding, they must provide information supporting their claim to standing, including the nature of their right under the governing statutes to be made a party, the nature of their interest in the proceeding, and the possible effect of any decision or order on their interest; LBP-09-6, 69 NRC 367 (2009)

whether a petitioner has met the regulatory requirements for Licensing Support Network compliance is a proper subject for challenge in an answer to an intervention petition; LBP-09-6, 69 NRC 367 (2009)

INTERVENTION PETITIONS, LATE-FILED

a nonparty seeking late intervention after the record has closed must address both the standard for late intervention and the standard for reopening a closed record; CLI-09-5, 69 NRC 115 (2009)

good cause is the most important factor to be weighed in allowing an untimely filing; LBP-09-6, 69 NRC 367 (2009)

INTERVENTION RULINGS

a board did not act unreasonably in basing standing on potential harm from new operations that would be similar to harm petitioner claims he has suffered from existing operations; CLI-09-12, 69 NRC 535 (2009)

although petitioner bears the burden of demonstrating standing, in ruling on standing a licensing board is to construe the petition in favor of the petitioner; LBP-09-1, 69 NRC 11 (2009)

in passing on whether a particular contention meets the admissibility test, boards have confined their inquiry to whether, with or without references to particular sources or documents, the supporting expert opinion has offered enough to justify a conclusion that the contention is worthy of further consideration on its merits; LBP-09-6, 69 NRC 367 (2009)

in ruling on petitions to intervene in the high-level waste proceeding, boards must consider any failure of the petitioner to participate as a potential party in the pre-license application phase under 10 C.F.R. Part 2, Subpart J; LBP-09-6, 69 NRC 367 (2009)

in situations in which a board denies a petition to intervene in its entirety or grants a petition to intervene that, according to an opposing litigant, should have been denied in its entirety, the losing litigant has a right to Commission review; CLI-09-6, 69 NRC 128 (2009)

litigation efforts that a litigant considers unnecessary because they relate to a contention that the litigant considers to have been improperly admitted do not affect the basic structure of a proceeding at all, much less in a pervasive and unusual manner; CLI-09-6, 69 NRC 128 (2009)

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- requirement to show distinct new harm from a license amendment application would not preclude standing to contest commencement of new operations at a separate site, where petitioner showed potential for harm to himself from new operation; CLI-09-12, 69 NRC 535 (2009)
- the Commission cannot find clear error in a board's failing to acknowledge an argument that was not brought to its attention and to which the petitioners had no opportunity to respond; CLI-09-12, 69 NRC 535 (2009)
- the Commission defers to a board's rulings on standing and contention admissibility in the absence of clear error or abuse of discretion; CLI-09-7, 69 NRC 235 (2009); CLI-09-8, 69 NRC 317 (2009); CLI-09-9, 69 NRC 331 (2009); CLI-09-12, 69 NRC 535 (2009); CLI-09-14, 69 NRC 580 (2009)
- the possibility that an interlocutory ruling may be wrong does not in itself justify interlocutory review; CLI-09-6, 69 NRC 128 (2009)
- the presiding officer in the high-level waste proceeding shall resolve disputes concerning adoption of the DOE environmental impact statement by using, to the extent possible, the criteria and procedures that are followed in ruling on motions to reopen; LBP-09-6, 69 NRC 367 (2009)
- were the Commission to permit litigants to successfully invoke interlocutory review based merely on an assertion that the licensing board erred in admitting or excluding a contention, then the Commission would be opening the floodgates to a potential deluge of interlocutory appeals from any number of participants who lose admissibility rulings; CLI-09-6, 69 NRC 128 (2009)
- IRREPARABLE INJURY**
- increased litigation delay and expense do not justify interlocutory review of an admissibility decision; CLI-09-6, 69 NRC 128 (2009)
- no instance has occurred in NRC jurisprudence where either the Commission or its boards have ruled that expenses of any kind constituted irreparable injury; CLI-09-6, 69 NRC 128 (2009)
- rejection or admission of a contention, where the petitioner has been admitted as a party and has other contentions pending, neither constitutes serious and irreparable impact, nor affects the basic structure of the proceeding in a pervasive and unusual manner; CLI-09-9, 69 NRC 331 (2009)
- the potential for litigation expense and delay is the kind of burden that licensees and applicants voluntarily assume when filing applications with the Commission; CLI-09-6, 69 NRC 128 (2009)
- See also Injury in Fact
- JURISDICTION**
- concurrent but independent jurisdiction of two federal agencies is addressed; LBP-09-6, 69 NRC 367 (2009)
- EPA is responsible for promulgating standards for environmental protection, and NRC is tasked with promulgating the criteria it will apply in the licensing proceeding; LBP-09-6, 69 NRC 367 (2009)
- LICENSE AMENDMENTS**
- there is no statutory or regulatory requirement that an applicant demonstrate any benefit from a requested license amendment; LBP-09-1, 69 NRC 11 (2009)
- LICENSE APPLICATIONS**
- any contention that fails to directly controvert the application or that mistakenly asserts that the application does not address a relevant issue can be dismissed; LBP-09-3, 69 NRC 139 (2009)
- contention alleging foreign ownership of applicant, failure to disclose, and various ramifications of such ownership, is admissible; LBP-09-1, 69 NRC 11 (2009)
- corporate applicants must provide place of incorporation, citizenship of directors and principal officers, and whether owned, controlled, or dominated by a foreign corporation in their application; LBP-09-1, 69 NRC 11 (2009)
- properly formulated contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact; LBP-09-3, 69 NRC 139 (2009)
- See also Combined License Application
- LICENSE RENEWAL PROCEEDINGS**
- a NEPA analysis of the potential impacts of deliberate attacks on a spent fuel pool and analysis of alternatives to mitigate spent fuel pool accidents are beyond the scope of a license renewal proceeding and therefore inadmissible; CLI-09-10, 69 NRC 521 (2009)

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additional briefing is requested on whether any additional severe accident mitigation alternatives should have been identified as potentially cost-beneficial, not whether further analysis may refine the details in the SAMA NEPA analysis; CLI-09-11, 69 NRC 529 (2009)

contention challenging a particular use of a straight-line Gaussian air dispersion model in the applicant's SAMA analysis is admissible; CLI-09-11, 69 NRC 529 (2009)

NRC adjudicatory hearings are not environmental impact statement editing sessions; CLI-09-11, 69 NRC 529 (2009)

LICENSE RENEWALS

a petition for review does not automatically prevent issuance of a renewed operating license; CLI-09-7, 69 NRC 235 (2009)

applicants must provide a plant-specific analysis of all Category 2 issues; CLI-09-10, 69 NRC 521 (2009) because Category 1 issues already have been reviewed on a generic basis for all plants, an applicant's environmental report need not provide a site-specific analysis of these issues; CLI-09-10, 69 NRC 521 (2009)

in uncontested operating license renewal proceedings, NRC Staff is authorized to issue a renewed license once the Director of the Office of Nuclear Reactor Regulation has made the appropriate findings; CLI-09-7, 69 NRC 235 (2009)

when a proceeding is contested, the Staff, as a matter of policy, seeks Commission approval to issue the license, even though issuance of the license is not stayed by the petition for review; CLI-09-7, 69 NRC 235 (2009)

LICENSEE CHARACTER

a genuine dispute exists despite the fact that character or integrity is not required by regulation to be addressed in the license application; LBP-09-6, 69 NRC 367 (2009)

a single, past violation of licensee's state permit could not demonstrate an ongoing pattern of violations or disregard for regulations that might be expected to recur in the future; CLI-09-9, 69 NRC 331 (2009)

allegations of several serious safety problems that had persisted with respect to the reactor over a period of years are a legitimate attack on management quality and integrity; CLI-09-9, 69 NRC 331 (2009)

an investigation into applicant's character should also include a review of the applicant's good character; LBP-09-6, 69 NRC 367 (2009)

as long as petitioner alleges, with sufficient support, that applicant's bad character or lack of integrity has direct and obvious relevance to the licensing action at issue in the proceeding, a character-based contention is admissible; LBP-09-6, 69 NRC 367 (2009)

contentions that DOE lacks management integrity to operate a high-level waste geologic repository are impermissible challenges to the Nuclear Waste Policy Act and are therefore beyond the scope of the proceeding; CLI-09-14, 69 NRC 580 (2009)

historical actions by an applicant or licensee are not relevant to its current fitness unless there is some direct and obvious relationship between the asserted character issues and the licensing action in dispute; CLI-09-14, 69 NRC 580 (2009)

in making determinations about integrity or character, the Commission may consider evidence bearing upon the licensee's candor, truthfulness, willingness to abide by regulatory requirements, and acceptance of responsibility to protect public health and safety; LBP-09-6, 69 NRC 367 (2009)

lack of either technical competence or character qualifications on the part of licensee or applicant is sufficient grounds for the revocation of a license or the denial of a license application; LBP-09-6, 69 NRC 367 (2009)

license renewal is an appropriate occasion for appraising the entire past performance of the licensee; CLI-09-9, 69 NRC 331 (2009)

the character or integrity of an applicant is a proper consideration in a licensing proceeding; LBP-09-6, 69 NRC 367 (2009)

the Commission's decision not to entertain a state intervenor's integrity and competence contentions in the high-level waste repository proceeding is consistent with its practice of extending comity to other governmental entities; CLI-09-14, 69 NRC 580 (2009)

to raise an admissible issue, allegations of management improprieties must be of more than historical interest; CLI-09-9, 69 NRC 331 (2009)

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when DOE is before the Commission, a heightened standard applies for the admissibility of integrity contentions beyond what is imposed by 10 C.F.R. 2.309(f)(1); LBP-09-6, 69 NRC 367 (2009)

LICENSEES

after completion of decommissioning, neither licensee nor the NRC retains any continuing obligation or jurisdiction, respectively, with respect to a site, unless new information shows that the Part 20 criteria were not met and the residual radioactivity remaining on the site could result in a significant threat to public health and safety; CLI-09-1, 69 NRC 1 (2009)

neither a uranium enrichment facility nor a nuclear power plant may be owned, controlled, or dominated by a foreign entity; CLI-09-9, 69 NRC 331 (2009)

See also Applicants

LICENSING BOARD DECISIONS

a board has a duty not only to resolve contested issues, but to articulate in reasonable detail the basis for the course of action chosen; CLI-09-14, 69 NRC 580 (2009)

a board is free to decide an issue on a theory different from those argued by the litigants, but only if it explains the specific basis of its ruling and gives the litigants a chance to present arguments and, where appropriate, evidence regarding the board's new theory; CLI-09-3, 69 NRC 68 (2009)

a board's ultimate NEPA judgments can be made on the basis of the entire adjudicatory record in addition to the Staff's final environmental impact statement; LBP-09-7, 69 NRC 613 (2009)

although a board is free to view intervenors' support for its contention in the light most favorable to intervenors, the board may not ignore the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); CLI-09-3, 69 NRC 68 (2009)

although the Commission has authority to make *de novo* findings of fact, it does not do so where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-09-7, 69 NRC 235 (2009)

boards must decide whether the final environmental impact statement alternatives discussion is sufficiently complete to aid the Commission in developing and exploring appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; LBP-09-7, 69 NRC 613 (2009)

even if an environmental impact statement prepared by the Staff is found to be inadequate in certain respects, the board's findings, as well as the adjudicatory record, become, in effect, part of the final EIS; LBP-09-7, 69 NRC 613 (2009)

if the presiding officer determines that any of the admitted contentions constitute pure issues of law, those contentions must be decided on the basis of briefs or oral argument according to a schedule determined by the presiding officer; LBP-09-6, 69 NRC 367 (2009)

the Commission will review legal questions *de novo*, and will reverse a licensing board's legal rulings if they are a departure from or contrary to established law; CLI-09-7, 69 NRC 235 (2009)

the Commission's standard of clear error for overturning a board's factual finding is quite high, and the Commission defers to its boards' findings unless clearly erroneous, i.e., not even plausible in light of the record viewed in its entirety; CLI-09-7, 69 NRC 235 (2009)

unless there is a strong reason to believe that in a particular case a board has overlooked or misunderstood important evidence, the Commission will defer to its findings of fact; CLI-09-7, 69 NRC 235 (2009)

LICENSING BOARD ORDERS

a board erred in admitting a contention on adverse health effects of exposure to arsenic, where petitioners had not laid a foundation and their arguments were speculative; CLI-09-9, 69 NRC 331 (2009)

a board has a duty not only to resolve contested issues, but to articulate in reasonable detail the basis for the course of action chosen; CLI-09-14, 69 NRC 580 (2009)

Commission rules in 10 C.F.R. 2.311(d) set a 10-day limit for appealing the selection of a particular hearing procedure because an appeal cannot wait until a board issues a decision on the merits of a contention; CLI-09-7, 69 NRC 235 (2009)

petitioners' contention that NRC Staff has not consulted with an affected Indian tribe is premature because it was filed prior to the time for the Staff to act, and the board erred in admitting it; CLI-09-9, 69 NRC 331 (2009)

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the board erred in admitting a contention concerning the economic value of wetlands without requiring petitioners to demonstrate that the proposed licensing action or no-action alternative would have any effect on wetlands; CLI-09-9, 69 NRC 331 (2009)

LICENSING BOARDS

a board's chief function is to carefully review all of the evidence, including testimony and exhibits, and to resolve any factual disputes; CLI-09-7, 69 NRC 235 (2009)

in adjudicating petitioners' appeal from the NRC Staff's denial of their request for access to sensitive unclassified nonsafeguards information, boards consider whether Staff correctly applied the criteria established by the Commission; LBP-09-5, 69 NRC 303 (2009)

the board's judgment at the pleading stage is accorded substantial deference; CLI-09-5, 69 NRC 115 (2009)

LICENSING BOARDS, AUTHORITY

a board is free to decide an issue on a theory different from those argued by the litigants, but only if it explains the specific basis of its ruling and gives the litigants a chance to present arguments and, where appropriate, evidence regarding the board's new theory; CLI-09-3, 69 NRC 68 (2009)

a board may not simply infer the bases for a contention; CLI-09-7, 69 NRC 235 (2009)

a board may view a petitioner's supporting information in a light favorable to the petitioner, but it cannot do so by ignoring contention admissibility rules, which require the petitioner (not the board) to supply all required elements for a valid intervention petition; CLI-09-7, 69 NRC 235 (2009)

a request for briefs on legal issues is one of the many tools available to a presiding officer generally in the conduct of a proceeding; CLI-09-14, 69 NRC 580 (2009)

a SUNSI requester may file a challenge to NRC Staff's adverse determination on access to SUNSI with the presiding officer, and the NRC Staff may file a reply to the requester's challenge; LBP-09-5, 69 NRC 303 (2009)

absent delegated authority, licensing boards lack authority to direct the Staff's nonadjudicatory actions; CLI-09-2, 69 NRC 55 (2009)

although a board is free to view intervenors' support for its contention in the light most favorable to intervenors, the board may not ignore the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); CLI-09-3, 69 NRC 68 (2009)

boards have broad discretion to sanction willful, prejudicial, and bad-faith behavior; LBP-09-1, 69 NRC 11 (2009)

boards lack authority to establish prospective sanctions for any failure by the Staff and/or the applicant to comply with the Board's notice conditions; CLI-09-2, 69 NRC 55 (2009)

boards may not add material not raised by a petitioner in order to render a contention admissible; CLI-09-12, 69 NRC 535 (2009)

boards may reformulate contentions to eliminate extraneous issues or to consolidate issues for a more efficient proceeding; CLI-09-12, 69 NRC 535 (2009)

chief functions are to carefully review all of the evidence, including testimony and exhibits, and to resolve any factual disputes; CLI-09-7, 69 NRC 235 (2009)

disputes arising from NRC Staff's adverse determinations on access to SUNSI are adjudicated regarding likelihood of standing and need; LBP-09-5, 69 NRC 303 (2009)

if petitioner neglects to provide the requisite support for its contentions, it is not within the board's power to make assumptions of fact that favor petitioner, nor may the board supply information that is lacking; LBP-09-3, 69 NRC 139 (2009)

in evaluating petitions to intervene, boards are not free to ignore the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); CLI-09-8, 69 NRC 317 (2009)

it is beyond the authority of a licensing board to require applicant to choose a certain method of decommissioning funding; LBP-09-4, 69 NRC 170 (2009)

licensing boards are bound by Commission and appeal board precedent and therefore are not at liberty to reject the 50-mile proximity presumption; LBP-09-4, 69 NRC 170 (2009)

licensing boards are not authorized to admit conditionally, for any reason, contentions that fall short of meeting the specificity requirements set forth in NRC procedural rules; CLI-09-2, 69 NRC 55 (2009)

NRC rules of procedure authorize boards to hold prehearing conferences for the purposes of simplifying or clarifying the issues for hearing, after which a board might admit a revised contention; CLI-09-12, 69 NRC 535 (2009)

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to the extent applicant may be subject to unreasonable or burdensome discovery requests in the future, it is free to seek relief from the board, which has ample authority to prevent or modify unreasonable discovery demands; CLI-09-6, 69 NRC 128 (2009)

LICENSING BOARDS, JURISDICTION

once there has been an appeal or petition to review a board order ruling on intervention petitions or, where a hearing is granted, following a partial or final initial decision, jurisdiction passes to the Commission; CLI-09-5, 69 NRC 115 (2009)

the Secretary's referral of petitioner's motion to admit a late-filed contention effectively returns jurisdiction to the licensing board to rule on the motion; CLI-09-5, 69 NRC 115 (2009)

LICENSING PROCEEDINGS

the ultimate burden of proof on the question of whether a permit or license should be issued is on the applicant, but the party contending that the permit or license should be denied, has the burden of going forward with evidence to buttress that contention; CLI-09-7, 69 NRC 235 (2009)

LICENSING SUPPORT NETWORK

a document's availability on the Internet does not authorize its exclusion from the LSN; LBP-09-6, 69 NRC 367 (2009)

an affirmative demonstration of compliance with the Licensing Support Network requirements is not required in an intervention petition; LBP-09-6, 69 NRC 367 (2009)

each party or potential party to the high-level waste proceeding must continue to supplement the production of its documentary material on the LSN; LBP-09-6, 69 NRC 367 (2009)

petitioner may not be granted party status in the high-level waste proceeding if it cannot demonstrate substantial and timely compliance with the requirements in 10 C.F.R. 2.1003 concerning the availability of documentary material on the LSN; LBP-09-6, 69 NRC 367 (2009)

regarding sufficiency of documentary production, perfection is not required and any production is bound to have some human mistakes; LBP-09-6, 69 NRC 367 (2009)

section 2.1009(b) requires certification to the Pre-License Application Presiding Officer that the party or potential party has complied with the implementation procedures of section 2.1009(a)(2) and that to the best of his or her knowledge, the documentary material specified in section 2.1003 has been identified and made electronically available; LBP-09-6, 69 NRC 367 (2009)

LITIGATION EXPENSES

increased litigation delay and expense do not justify interlocutory review of an admissibility decision; CLI-09-6, 69 NRC 128 (2009)

licensing boards have awarded payment of litigation fees and expenses from a licensee to an intervenor if there has been legal harm to the intervenors caused by some activity or action of the licensee; LBP-09-1, 69 NRC 11 (2009)

no instance has occurred in NRC jurisprudence where either the Commission or its boards have ruled that expenses of any kind constituted irreparable injury; CLI-09-6, 69 NRC 128 (2009)

NRC appropriations shall not be used to pay the expenses of, or otherwise compensate, parties intervening in regulatory or adjudicatory proceedings; LBP-09-1, 69 NRC 11 (2009)

the potential for litigation expense and delay is the kind of burden that licensees and applicants voluntarily assume when filing applications with the Commission; CLI-09-6, 69 NRC 128 (2009)

LOCAL GOVERNMENTAL BODIES

any affected unit of local government need not address standing in the high-level waste proceeding, but rather shall be considered a party provided that it files at least one admissible contention in accordance with 10 C.F.R. 2.309(f); LBP-09-6, 69 NRC 367 (2009)

MANAGEMENT CHARACTER AND COMPETENCE

a materials license amendment proceeding is not an appropriate forum to throw open an opportunity to engage in a free-ranging inquiry into the character of the licensee; LBP-09-1, 69 NRC 11 (2009)

contentions that DOE lacks management integrity to operate a high-level waste geologic repository are impermissible challenges to the Nuclear Waste Policy Act and are therefore beyond the scope of the proceeding; CLI-09-14, 69 NRC 580 (2009)

past performance of management or high-ranking officers, as reflected in deliberate violations of regulations or untruthful reports to the Commission, may indicate whether a licensee will comply with agency standards, and will candidly respond to NRC inquiries; LBP-09-6, 69 NRC 367 (2009)

SUBJECT INDEX

MATERIAL FALSE STATEMENTS

information provided to the Commission by an applicant for a license or by a licensee must be complete and accurate in all material respects; LBP-09-1, 69 NRC 11 (2009)

MATERIALITY

for contentions to be admissible, the subject matter of the contention must impact the grant or denial of a pending license application; LBP-09-3, 69 NRC 139 (2009)

the increased risk of living within 50 miles of a nuclear power plant constitutes injury-in-fact, is traceable to the challenged action, and is likely to be redressed by a favorable decision that either denies a license or mandates compliance with legal requirements that protect the interests of the petitioners; LBP-09-4, 69 NRC 170 (2009)

the requirement of materiality often dictates that any contention alleging deficiencies or errors in an application also indicate some significant link between the claimed deficiency and either the health and safety of the public or the environment; LBP-09-3, 69 NRC 139 (2009)

whether excessive safety design could lead to licensing uncertainty, unnecessary costs, or delays are not issues material to the high-level waste repository construction authorization proceeding; CLI-09-14, 69 NRC 580 (2009)

MATERIALS LICENSE AMENDMENT PROCEEDINGS

a board did not act unreasonably in basing standing on potential harm from new operations that would be similar to harm petitioner claims he has suffered from existing operations; CLI-09-12, 69 NRC 535 (2009)

intervenors' nuclear proliferation concern is premised upon future third-party activities that are unrelated to the specific activities authorized by license amendments and is not litigable because it is not a direct consequence of the proposed license amendments or the Commission's approval thereof; LBP-09-1, 69 NRC 11 (2009)

past violations or accidents that have no direct bearing on a proposed amendment may not be litigated; CLI-09-12, 69 NRC 535 (2009)

petitioners' claim that a foreign-owned company would be more likely than a U.S.-owned company to export its product overseas falls outside the scope of the proceeding, where the applicant had not applied for a license to export recovered uranium; CLI-09-12, 69 NRC 535 (2009)

petitioners have the burden to show a specific and plausible means whereby the licensing decision may harm them; CLI-09-9, 69 NRC 331 (2009)

proximity alone does not suffice for standing; CLI-09-12, 69 NRC 535 (2009)

requirement to show distinct new harm from a license amendment application would not preclude standing to contest commencement of new operations at a separate site, where petitioner showed potential for harm to himself from new operation; CLI-09-12, 69 NRC 535 (2009)

Subpart G hearing procedures do not apply to these proceedings; LBP-09-1, 69 NRC 11 (2009)

the fact that NRC Staff consultation with interested Indian tribes had not yet taken place at the time a materials license amendment application was filed did not reflect a deficiency in the application and thus a contention alleging a deficiency in the application was inadmissible; CLI-09-12, 69 NRC 535 (2009)

this is not an appropriate forum to throw open an opportunity to engage in a free-ranging inquiry into the character of the licensee; LBP-09-1, 69 NRC 11 (2009)

where there is no obvious potential for offsite harm, petitioner must show a specific and plausible means of how the challenged action may harm him or her; CLI-09-9, 69 NRC 331 (2009)

MATERIALS LICENSE AMENDMENTS

issuance of the license must not be inimical to the common defense and security or to the health and safety of the public; LBP-09-1, 69 NRC 11 (2009)

MATERIALS LICENSE RENEWAL PROCEEDINGS

appraisal of the entire past performance of the licensee is an appropriate issue in contentions; CLI-09-9, 69 NRC 331 (2009)

MATERIALS LICENSES

issuance of a materials license to a licensee wholly owned by a foreign parent is not prohibited; CLI-09-12, 69 NRC 535 (2009)

with respect to possession, a Part 40 license continues in effect after expiration until decommissioning is completed; CLI-09-1, 69 NRC 1 (2009)

SUBJECT INDEX

MONETARY AWARDS

licensing boards have awarded payment of litigation fees and expenses from a licensee to an intervenor if there has been legal harm to the intervenors caused by some activity or action of the licensee; LBP-09-1, 69 NRC 11 (2009)

NRC is explicitly prohibited by law from paying the expenses of or otherwise compensating intervenors, and thus cannot grant petitioners funds to prepare requests for access to safeguards information or sensitive unclassified nonsafeguards information; CLI-09-4, 69 NRC 80 (2009)

MONITORING

See Radiation Monitoring System

MOOTNESS

in the case of a contention of omission, if applicant cures the omission by supplying the missing information, the contention moot; CLI-09-8, 69 NRC 317 (2009)

MOTIONS FOR RECONSIDERATION

arguments on a separate matter, which petitioner adopts in a motion for reconsideration but could have made earlier, do not provide a compelling substantive basis for reconsidering a decision; CLI-09-8, 69 NRC 317 (2009)

NRC rules do not provide for multiple requests for reconsideration of the same decision; CLI-09-8, 69 NRC 317 (2009)

MOTIONS TO REOPEN

a mere showing of a possible violation is not enough to reopen a record; CLI-09-7, 69 NRC 235 (2009)
expert affidavits supporting motions must be presented by competent individuals with knowledge of the facts alleged or by experts in the appropriate disciplines and the evidence must meet admissibility standards; CLI-09-7, 69 NRC 235 (2009)

motions are governed by 10 C.F.R. 2.326, which requires satisfaction of three listed criteria and that the motion be accompanied by an affidavit that meets certain specific requirements; CLI-09-7, 69 NRC 235 (2009)

motions must be accompanied by affidavits of qualified experts presenting the factual and/or technical bases for the claim that there is a significant safety issue, together with evidence that satisfies admissibility standards; CLI-09-7, 69 NRC 235 (2009)

movant must provide the factual and/or technical basis for its claims in affidavit form; CLI-09-5, 69 NRC 115 (2009)

once there has been an appeal or petition to review a board order ruling on intervention petitions or, where a hearing is granted, following a partial or final initial decision, jurisdiction passes to the Commission; CLI-09-5, 69 NRC 115 (2009)

only a party to a proceeding may move to reopen a closed record; CLI-09-5, 69 NRC 115 (2009)

the burden of satisfying the reopening requirements is a heavy one, and proponents of a reopening motion bear the burden of meeting all of these requirements; CLI-09-7, 69 NRC 235 (2009)

the most important of the late-filing factors is good cause for the failure to file on time; CLI-09-5, 69 NRC 115 (2009)

the presiding officer in the high-level waste proceeding shall resolve disputes concerning adoption of the DOE environmental impact statement by using, to the extent possible, the criteria and procedures that are followed in ruling on motions to reopen; LBP-09-6, 69 NRC 367 (2009)

the Secretary's referral of petitioner's motion to admit a late-filed contention effectively returns jurisdiction to the licensing board to rule on the motion; CLI-09-5, 69 NRC 115 (2009)

MOTIONS

See also Referral of Motion

NATIONAL ENVIRONMENTAL POLICY ACT

a board's ultimate NEPA judgments can be made on the basis of the entire adjudicatory record in addition to the Staff's final environmental impact statement; LBP-09-7, 69 NRC 613 (2009)

a conclusion that something is a "connected action" does not necessarily inform the type of impact analysis that is performed, whether direct, indirect, or cumulative; LBP-09-7, 69 NRC 613 (2009)

a NEPA environmental analysis is not an appropriate vehicle for exploring questions about the potential for a terrorist attack upon a proposed nuclear facility; CLI-09-10, 69 NRC 521 (2009); LBP-09-2, 69 NRC 87 (2009)

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a reviewing agency determines whether an alternative is appropriate by looking at the objectives (i.e., purpose and need) of a project sponsor; LBP-09-2, 69 NRC 87 (2009)

accuracy of project cost estimates only becomes relevant if an environmentally preferable alternative has been identified; LBP-09-2, 69 NRC 87 (2009)

affidavits supporting environmental contentions in the high-level waste proceeding must set forth factual and/or technical bases for the claim that it is not practicable to adopt the DOE environmental impact statement; LBP-09-6, 69 NRC 367 (2009)

agencies are given broad discretion in determining how thoroughly to analyze a particular subject, and may decline to examine issues that an agency in good faith considers remote and speculative or inconsequentially small; LBP-09-7, 69 NRC 613 (2009)

alternative energy sources that will be dependent on future environmental safeguards and technological developments need not be considered in an environmental impact statement; LBP-09-7, 69 NRC 613 (2009)

although the U.S. Court of Appeals for the Ninth Circuit has held that the NRC must address certain terrorism-related matters to satisfy its NEPA obligations, the Commission has stated that it does not consider itself bound by that holding outside the Ninth Circuit; LBP-09-2, 69 NRC 87 (2009)

an agency may be excused from complying with NEPA where it has no discretion to prevent, or to refuse to take, the action involved; LBP-09-6, 69 NRC 367 (2009)

an agency may rely on an environmental impact statement prepared by another federal agency if such reliance will aid in the presentation of issues, eliminate repetition, or reduce the length of an EIS; LBP-09-7, 69 NRC 613 (2009)

an agency must consider alternatives that are appropriate to recommended courses of action; LBP-09-2, 69 NRC 87 (2009)

an early site permit applicant must submit an environmental report containing a description of the proposed action, a statement of its purposes, and a description of the environment affected; LBP-09-7, 69 NRC 613 (2009)

an environmental impact statement must address both direct and indirect effects of an action; LBP-09-7, 69 NRC 613 (2009)

an environmental impact statement must disclose measures that will mitigate potential adverse environmental impacts; LBP-09-4, 69 NRC 170 (2009)

as long as applicant has not set forth an unreasonably narrow objective of its project, NRC adheres to the principle that when the purpose is to accomplish one thing, it makes no sense to consider alternative ways by which another thing might be accomplished; LBP-09-2, 69 NRC 87 (2009)

as the proponent of the agency action at issue, applicant generally has the burden of proof in a licensing proceeding, but when environmental contentions are involved, the burden shifts to the Staff, because NRC, not an applicant, has the burden of complying with NEPA; LBP-09-7, 69 NRC 613 (2009)

because Staff relies heavily upon applicant's environmental report in preparing the environmental impact statement, should applicant become a proponent of a particular challenged position set forth in the EIS, applicant, as such a proponent, also has the burden on that matter; LBP-09-7, 69 NRC 613 (2009)

boards must decide whether the final environmental impact statement alternatives discussion is sufficiently complete to aid the Commission in developing and exploring appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; LBP-09-7, 69 NRC 613 (2009)

boards should treat as a cognizable new consideration an attack on the Yucca Mountain environmental impact statements based on significant and substantial information that, if true, would render the statements inadequate; LBP-09-6, 69 NRC 367 (2009)

consideration of environmental impacts need not address every impact that could possibly result, but rather only those that are reasonably foreseeable or have some likelihood of occurring; LBP-09-7, 69 NRC 613 (2009)

costs for a project are relevant for the determination only if an environmentally preferable option is identified; LBP-09-2, 69 NRC 87 (2009)

Council on Environmental Quality regulations are not binding on NRC when the agency has not expressly adopted them, but are entitled to considerable deference; LBP-09-7, 69 NRC 613 (2009)

cumulative impacts are defined; LBP-09-7, 69 NRC 613 (2009)

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direct environmental effects are those caused by the federal action, and occurring at the same time and place as that action, while indirect effects are those caused by the action at a later time or more distant place, yet are still reasonably foreseeable; LBP-09-7, 69 NRC 613 (2009)

each factual environmental contention must be accompanied by one or more affidavits, but a purely legal issue contention cannot logically require affidavit support, as by definition such a contention alleges no facts that require support; LBP-09-6, 69 NRC 367 (2009)

even if an environmental impact statement prepared by the Staff is found to be inadequate in certain respects, the board's findings, as well as the adjudicatory record, become, in effect, part of the final EIS; LBP-09-7, 69 NRC 613 (2009)

events having a less than a one in one million probability of occurring are not credible events; LBP-09-4, 69 NRC 170 (2009)

federal agencies are charged with weighing the environmental effects and impacts of the proposed project and its alternatives against each other and balancing those effects against the benefits of each such project; LBP-09-2, 69 NRC 87 (2009)

federal agencies must examine, analyze, and disclose not only direct effects, but also indirect effects that are later in time or farther removed in distance, but are still reasonably foreseeable; LBP-09-6, 69 NRC 367 (2009)

federal agencies must take a hard look at the environmental impacts of a proposed action, as well as reasonable alternatives to that action; LBP-09-7, 69 NRC 613 (2009)

for impacts that are reasonably foreseeable, but for which the agency lacks complete information in its analysis, the agency must indicate that such information is lacking; LBP-09-7, 69 NRC 613 (2009)

if federal agencies were free to ignore related environmental effects that they do not directly regulate, NEPA would be meaningless; LBP-09-6, 69 NRC 367 (2009)

if the accident sought to be considered is sufficiently unlikely, such that it can be characterized fairly as remote and speculative, then consideration under NEPA is not required as a matter of law; LBP-09-4, 69 NRC 170 (2009)

in implementing NEPA, NRC uses the definitions provided in Council on Environmental Quality regulations; LBP-09-7, 69 NRC 613 (2009)

in its conclusions regarding the environmental impacts of a proposed action or alternative actions, the Staff uses as guidance a standard scheme to categorize or quantify the impacts; LBP-09-7, 69 NRC 613 (2009)

intervenors are required to file environmental contentions in the first instance based on the applicant's environmental report; LBP-09-7, 69 NRC 613 (2009)

it would be inconsistent with the rule of reason to require that the cumulative impacts analysis individually analyze the effects of remote facilities absent a demonstration that such additional effort would lead to a different conclusion; LBP-09-4, 69 NRC 170 (2009)

merely contemplating a certain action, even if accompanied by research or study, does not necessarily constitute a proposal for a major federal action requiring NEPA review; CLI-09-14, 69 NRC 580 (2009)

NEPA analyses are subject to a rule of reason, but it is necessary to have a criterion upon which reasonableness may be determined; LBP-09-4, 69 NRC 170 (2009)

NRC is not in the business of regulating the market strategies of licensees and leaves to them the ongoing business decisions that relate to costs and profit; LBP-09-2, 69 NRC 87 (2009)

NRC Staff is required to prepare an environmental impact statement in connection with the issuance of an early site permit; LBP-09-7, 69 NRC 613 (2009)

NRC Staff must consult with interested Indian tribes as part of its review of the application; CLI-09-12, 69 NRC 535 (2009)

NRC Staff must first prepare a draft environmental impact statement; LBP-09-7, 69 NRC 613 (2009)

NRC's obligations under NEPA focus on the adjective "environmental," and NEPA does not require the agency to assess every impact or effect, but only the impact or effect on the environment; LBP-09-2, 69 NRC 87 (2009)

once the adverse environmental effects of a proposed action are adequately identified and evaluated, the agency is not constrained from deciding that other values outweigh the environmental costs; LBP-09-7, 69 NRC 613 (2009)

projects, for the purposes of NEPA, are described as proposed actions, or proposals in which action is imminent; CLI-09-14, 69 NRC 580 (2009)

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- quibbling over the details of an economic analysis amounts to standing NEPA on its head by asking that the license be rejected not due to environmental costs, but because the economic benefits are not as great as estimated; LBP-09-2, 69 NRC 87 (2009)
- reasonable alternatives do not include alternatives that are impractical, that present unique problems, or that cause extraordinary costs; LBP-09-7, 69 NRC 613 (2009)
- technologically unproven alternatives need not be considered in an environmental impact statement; LBP-09-7, 69 NRC 613 (2009)
- the Act does not mandate particular results, but simply prescribes the necessary process; LBP-09-6, 69 NRC 367 (2009)
- the board erred in admitting a contention concerning the economic value of wetlands without requiring petitioners to demonstrate that the proposed licensing action or no-action alternative would have any effect on wetlands; CLI-09-9, 69 NRC 331 (2009)
- the draft EIS is distributed for public comment and, based on the comments received, a review of information provided by the applicant, and supplemental independent information and analysis, the Staff prepares and issues a final EIS; LBP-09-7, 69 NRC 613 (2009)
- the draft environmental impact statement may rely in part on the environmental report, but agency regulations require the Staff to independently evaluate and be responsible for the reliability of all information used in the DEIS; LBP-09-7, 69 NRC 613 (2009)
- throughout the repository development program, the Secretary and other agencies must meet the general requirements and the spirit of NEPA; LBP-09-6, 69 NRC 367 (2009)
- when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant with regard to issues such as site selection and facility design; LBP-09-7, 69 NRC 613 (2009)
- NATIONAL HISTORIC PRESERVATION ACT**
- a federal agency must consult with an Indian tribe concerning a federal action that might affect sites of cultural interest to the tribe; CLI-09-9, 69 NRC 331 (2009)
- federal "undertakings," are defined as any project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those requiring a federal permit, license, or approval; CLI-09-12, 69 NRC 535 (2009)
- NRC Staff must consult with interested Indian tribes as part of its review of the application; CLI-09-12, 69 NRC 535 (2009)
- petitioners' contention that NRC Staff has not consulted with an affected Indian tribe is premature if it is filed prior to the time for the Staff to act; CLI-09-9, 69 NRC 331 (2009)
- NATIVE AMERICANS**
- a board may grant party status only to a single representative for each affected federally recognized Indian tribe; LBP-09-6, 69 NRC 367 (2009)
- a Native American nation retains its water rights even after its land rights have been extinguished, but those reserved rights must originate in a treaty in order to survive; LBP-09-6, 69 NRC 367 (2009)
- an affected federally recognized Indian tribe is automatically entitled to participate in the Yucca Mountain proceeding; LBP-09-6, 69 NRC 367 (2009)
- NRC must make a reasonable and good-faith effort to identify any Indian tribes that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties; CLI-09-12, 69 NRC 535 (2009)
- NRC Staff must consult with interested Indian tribes as part of its review of the application; CLI-09-12, 69 NRC 535 (2009)
- petitioners' contention that NRC Staff has not consulted with an affected Indian tribe is premature if it is filed prior to the time for the Staff to act; CLI-09-9, 69 NRC 331 (2009)
- standing is granted to an Indian tribe based on its interest in cultural artifacts onsite that could be affected by a proposed licensing action; CLI-09-9, 69 NRC 331 (2009)
- treaties granting ownership of the Black Hills to the Sioux Nation had been abrogated by act of Congress and are no longer in effect; CLI-09-9, 69 NRC 331 (2009)
- where an abrogated treaty was the only grounds supporting an Indian group's claim of standing, the board correctly found that the Indian group did not have standing as a party to the proceeding; CLI-09-9, 69 NRC 331 (2009)

SUBJECT INDEX

NO SIGNIFICANT HAZARDS DETERMINATION

Staff is permitted to issue an amendment to a reactor operating license notwithstanding the pendency of an adjudicatory hearing if it determines that the licensing action involves no significant hazards consideration; CLI-09-5, 69 NRC 115 (2009)

NO-ACTION ALTERNATIVE

the board erred in admitting a contention concerning the economic value of wetlands without requiring petitioners to demonstrate that the proposed licensing action or no-action alternative would have any effect on wetlands; CLI-09-9, 69 NRC 331 (2009)

NRC POLICY

Commission policy of permitting the conduct of an adjudicatory proceeding on a combined license that references a design certification that the Commission has not approved does not violate the Atomic Energy Act of 1954, 10 C.F.R. Part 52, or judicial decisions; CLI-09-4, 69 NRC 80 (2009)

NRC REVIEW

neither the number nor location of public meetings required to satisfy an agency's public review process for its environmental document is specified; LBP-09-6, 69 NRC 367 (2009)

NRC must undertake its own assessment of DOE's environmental documents to determine whether it is practicable to adopt them; LBP-09-6, 69 NRC 367 (2009)

NRC STAFF

a SUNSI requester may file a challenge to NRC Staff's adverse determination on access to SUNSI with the presiding officer, and the NRC Staff may file a reply to the requester's challenge; LBP-09-5, 69 NRC 303 (2009)

absent delegated authority, licensing boards lack authority to direct the Staff's nonadjudicatory actions; CLI-09-2, 69 NRC 55 (2009)

an environmental impact statement must be prepared in connection with the issuance of an early site permit; LBP-09-7, 69 NRC 613 (2009)

as the proponent of the agency action at issue, applicant generally has the burden of proof in a licensing proceeding, but when NEPA contentions are involved, the burden shifts to the Staff, because NRC, not an applicant, has the burden of complying with NEPA; LBP-09-7, 69 NRC 613 (2009)

because Staff relies heavily upon applicant's environmental report in preparing the environmental impact statement, should applicant become a proponent of a particular challenged position set forth in the EIS, applicant also has the burden on that matter; LBP-09-7, 69 NRC 613 (2009)

boards lack authority to establish prospective sanctions for any failure by the Staff and/or the applicant to comply with the board's notice conditions; CLI-09-2, 69 NRC 55 (2009)

if a SUNSI request is denied, Staff shall briefly state the reasons for the denial; LBP-09-5, 69 NRC 303 (2009)

petitioners' contention that NRC Staff has not consulted with an affected Indian tribe is premature if it is filed prior to the time for the Staff to act; CLI-09-9, 69 NRC 331 (2009)

Staff is permitted to issue an amendment to a reactor operating license notwithstanding the pendency of an adjudicatory hearing if it determines that the licensing action involves no significant hazards consideration; CLI-09-5, 69 NRC 115 (2009)

NRC STAFF REVIEW

a new contention will necessarily fail if it attacks the quality of the Staff's review rather than identifying a deficiency in the application; CLI-09-5, 69 NRC 115 (2009)

agencies are given broad discretion in determining how thoroughly to analyze a particular subject, and may decline to examine issues that an agency in good faith considers remote and speculative or inconsequentially small; LBP-09-7, 69 NRC 613 (2009)

an otherwise admissible contention that raises challenges to information in a design certification rulemaking should be referred to the Staff for resolution in the rulemaking; CLI-09-8, 69 NRC 317 (2009)

boards must decide whether the final environmental impact statement alternatives discussion is sufficiently complete to aid the Commission in developing and exploring appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; LBP-09-7, 69 NRC 613 (2009)

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consideration of environmental impacts need not address every impact that could possibly result, but rather only those that are reasonably foreseeable or have some likelihood of occurring; LBP-09-7, 69 NRC 613 (2009)

contentions that question the Staff's review are improper; CLI-09-14, 69 NRC 580 (2009)

federal agencies must take a hard look at the environmental impacts of a proposed action, as well as reasonable alternatives to that action; LBP-09-7, 69 NRC 613 (2009)

NRC must make a reasonable and good-faith effort to identify any Indian tribes that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties; CLI-09-12, 69 NRC 535 (2009)

NRC Staff is required to present its position on whether it is practicable to adopt DOE's environmental impact statement for Yucca Mountain without supplementation; LBP-09-6, 69 NRC 367 (2009)

NRC Staff may adopt the underlying scientific data and inferences from another agency's analysis without independent review, as long as it exercises independent judgment with respect to conclusions about the environmental impacts of the current proposed agency action; LBP-09-7, 69 NRC 613 (2009)

the fact that NRC Staff consultation with interested Indian tribes had not yet taken place at the time a materials license amendment application was filed did not reflect a deficiency in the application and thus a contention alleging a deficiency in the application was inadmissible; CLI-09-12, 69 NRC 535 (2009)

there is no legal requirement that the Staff find that the proposed design is not too conservative or that the associated costs are not excessive as part of its safety review of the high-level waste repository construction authorization application; CLI-09-14, 69 NRC 580 (2009)

under the National Environmental Policy Act and the National Historic Preservation Act, NRC Staff must consult with interested Indian tribes as part of its review of the application; CLI-09-12, 69 NRC 535 (2009)

when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant with regard to issues such as site selection and facility design; LBP-09-7, 69 NRC 613 (2009)

NUCLEAR NON-PROLIFERATION

in the absence of unusual circumstances, the Commission need not look beyond the non-proliferation safeguards in determining whether the common defense and security standard is met; LBP-09-1, 69 NRC 11 (2009)

intervenors' nuclear proliferation concern is premised upon future third-party activities that are unrelated to the specific activities authorized by license amendments and is not litigable because it is not a direct consequence of the proposed license amendments or the Commission's approval thereof; LBP-09-1, 69 NRC 11 (2009)

NUCLEAR POWER PLANTS

neither a uranium enrichment facility nor a nuclear power plant may be owned, controlled, or dominated by a foreign entity; CLI-09-9, 69 NRC 331 (2009)

NUCLEAR REGULATORY COMMISSION, AUTHORITY

action of the Commission is determined by a majority vote of the members present; CLI-09-1, 69 NRC 1 (2009)

agencies are given broad discretion in determining how thoroughly to analyze a particular subject, and may decline to examine issues that an agency in good faith considers remote and speculative or inconsequentially small; LBP-09-7, 69 NRC 613 (2009)

although a petition for review does not challenge anything the boards actually decided, the Commission addresses the merits of the request as an exercise of its ultimate supervisory control over NRC proceedings; CLI-09-10, 69 NRC 521 (2009)

although the Commission has authority to make *de novo* findings of fact, it does not do so where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-09-7, 69 NRC 235 (2009)

Council on Environmental Quality regulations are not binding on NRC when the agency has not expressly adopted them, but are entitled to considerable deference; LBP-09-7, 69 NRC 613 (2009)

EPA is responsible for promulgating standards for environmental protection, and NRC is tasked with promulgating the criteria it will apply in the licensing proceeding; LBP-09-6, 69 NRC 367 (2009)

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even if the Commission could waive the application fee for access to safeguards information, the mere fact that petitioners are public interest organizations provides no special reason for departing from well-established NRC practice; CLI-09-4, 69 NRC 80 (2009)

grant of petitions for review is discretionary, given due weight to the existence of a substantial question with respect to the five considerations listed in 10 C.F.R. 2.341(b)(4); CLI-09-7, 69 NRC 235 (2009)

NEPA charges federal agencies with weighing the environmental effects and impacts of the proposed project and its alternatives against each other and balancing those effects against the benefits of each such project; LBP-09-2, 69 NRC 87 (2009)

NRC appropriations shall not be used to pay the expenses of, or otherwise compensate, parties intervening in regulatory or adjudicatory proceedings; LBP-09-1, 69 NRC 11 (2009)

NRC cannot grant petitioners funds to prepare requests for access to safeguards information or sensitive unclassified nonsafeguards information; CLI-09-4, 69 NRC 80 (2009)

NRC's criteria must not be inconsistent with EPA's environmental protection standards; LBP-09-6, 69 NRC 367 (2009)

NRC's obligations under the National Environmental Policy Act focus on the adjective "environmental," and NEPA does not require the agency to assess every impact or effect, but only the impact or effect on the environment; LBP-09-2, 69 NRC 87 (2009)

routine rulings on contention admissibility are usually not occasions for the Commission to exercise its authority to step into ongoing licensing board proceedings and undertake interlocutory review; CLI-09-3, 69 NRC 68 (2009)

the Commission has authority to review board rulings *sua sponte*, in the exercise of its inherent supervisory authority over NRC adjudications, regardless of whether the Commission accepts the referral; CLI-09-3, 69 NRC 68 (2009)

the Commission is entitled to review the record itself and amplify the board's findings; CLI-09-14, 69 NRC 580 (2009)

the Commission itself may exercise its discretion to review a licensing board's interlocutory order if the Commission wants to address a novel or important issue; CLI-09-6, 69 NRC 128 (2009)

the Commission or presiding officer may extend a time limit upon a showing of good cause; CLI-09-4, 69 NRC 80 (2009)

the Commission's exercise of its discretion to review a licensing board's interlocutory order stems from its inherent supervisory authority over adjudications and in no way implies that parties have a right to seek interlocutory review on that same ground; CLI-09-6, 69 NRC 128 (2009)

the Nuclear Waste Policy Act does not diminish any part of the Commission's authority to review license applications and issue licenses under the Atomic Energy Act; LBP-09-6, 69 NRC 367 (2009)

when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant with regard to issues such as site selection and facility design; LBP-09-7, 69 NRC 613 (2009)

NUCLEAR REGULATORY COMMISSION, JURISDICTION

after completion of decommissioning, neither licensee nor the NRC retains any continuing obligation or jurisdiction, respectively, with respect to a site, unless new information shows that the Part 20 criteria were not met and the residual radioactivity remaining on the site could result in a significant threat to public health and safety; CLI-09-1, 69 NRC 1 (2009)

concurrent but independent jurisdiction of two federal agencies is addressed; LBP-09-6, 69 NRC 367 (2009)

once there has been an appeal or petition to review a board order ruling on intervention petitions or, where a hearing is granted, following a partial or final initial decision, jurisdiction passes to the Commission; CLI-09-5, 69 NRC 115 (2009)

the Secretary's referral of petitioner's motion to admit a late-filed contention effectively returns jurisdiction to the licensing board to rule on the motion; CLI-09-5, 69 NRC 115 (2009)

NUCLEAR WASTE POLICY ACT

contentions that DOE lacks management integrity to operate a high-level waste geologic repository are impermissible challenges to the NWPA and are therefore beyond the scope of the proceeding; CLI-09-14, 69 NRC 580 (2009)

NRC's adoption of any environmental impact statement prepared in connection with a repository shall be deemed to also satisfy the responsibilities of NRC under NEPA and no further consideration shall be

SUBJECT INDEX

- required except any independent responsibilities of NRC to protect public health under the Atomic Energy Act; LBP-09-6, 69 NRC 367 (2009)
- NRC's criteria must not be inconsistent with EPA's environmental protection standards; LBP-09-6, 69 NRC 367 (2009)
- “repository” is defined as any system licensed by the Commission that is intended to be used for, or may be used for the permanent deep geologic disposal of high-level radioactive waste and spent nuclear fuel; LBP-09-6, 69 NRC 367 (2009)
- the mandate that the environmental impact statement be adopted by NRC to the extent practicable is intended to avoid duplication of the environmental review process but does not permit NRC to premise a construction-authorization or licensing decision upon an EIS that does not meet the substantive requirements of the NEPA or the Council on Environmental Quality's NEPA regulations; LBP-09-6, 69 NRC 367 (2009)
- this statute does not diminish any part of the Commission's authority to review license applications and issue licenses under the Atomic Energy Act; LBP-09-6, 69 NRC 367 (2009)
- OPERATING LICENSE AMENDMENTS**
- proceedings on license amendments continue until they are over, even if the amendment is issued in the interim; CLI-09-5, 69 NRC 115 (2009)
- Staff is permitted to issue an amendment to a reactor operating license notwithstanding the pendency of an adjudicatory hearing if it determines that the licensing action involves no significant hazards consideration; CLI-09-5, 69 NRC 115 (2009)
- OWNERSHIP**
- See Foreign Ownership
- PARTIES**
- a person who invokes the right to participate in an NRC proceeding also voluntarily accepts the obligations attendant upon such participation; CLI-09-8, 69 NRC 317 (2009)
- a “potential party” is any person who intends, or may intend, to participate as a party in the proceeding by demonstrating standing and by filing an admissible contention; LBP-09-5, 69 NRC 303 (2009)
- obligations include participation within the schedule established for the proceeding despite the burden on a participant's time and resources and despite uncertainties engendered by the potential for new information; CLI-09-8, 69 NRC 317 (2009)
- only a party to a proceeding may move to reopen a closed record; CLI-09-5, 69 NRC 115 (2009)
- See also Conduct of Parties
- PERFORMANCE ASSESSMENT**
- a systematic analysis that quantitatively estimates radiological exposures is the definition of performance assessment; LBP-09-6, 69 NRC 367 (2009)
- compliance with limits on radiological exposures, over necessarily long time periods, requires a performance assessment; LBP-09-6, 69 NRC 367 (2009)
- demonstration of compliance with 10 C.F.R. 63.113 must consider alternative conceptual models; LBP-09-6, 69 NRC 367 (2009)
- performance assessment for the high-level waste repository must meet a number of very specific requirements; LBP-09-6, 69 NRC 367 (2009)
- PERSONHOOD**
- the Department of Energy is not a “person” for purposes of AEA § 11s; CLI-09-14, 69 NRC 580 (2009)
- PLEADINGS**
- any supporting material provided by a petitioner, including those portions of the material that are not relied upon, is subject to board scrutiny; LBP-09-3, 69 NRC 139 (2009)
- Commission regulations do not contemplate filing a vague, unsupported pleading as a placeholder for a more detailed pleading to follow; CLI-09-5, 69 NRC 115 (2009)
- intervention petitioner must state the nature and extent of his/her/its property, financial, or other interest in the proceeding, a concept separate and apart from that of what constitutes a contention; LBP-09-1, 69 NRC 11 (2009)
- material provided in support of a contention will be carefully examined by the board to confirm that on its face it does supply adequate support for the contention; LBP-09-3, 69 NRC 139 (2009)
- notice pleading is expressly prohibited by the rules of practice; CLI-09-5, 69 NRC 115 (2009)

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presiding officers have authority to dispose of certain issues on the pleadings; CLI-09-14, 69 NRC 580 (2009)

the board's judgment at the pleading stage is accorded substantial deference; CLI-09-5, 69 NRC 115 (2009)

the Commission should not be expected to sift unaided through earlier briefs or other documents filed before the Board to piece together and discern a party's argument and the grounds for its claims; CLI-09-11, 69 NRC 529 (2009)

whether a petitioner has met the regulatory requirements for Licensing Support Network compliance is a proper subject for challenge in an answer to an intervention petition; LBP-09-6, 69 NRC 367 (2009)

POLICY

a contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue; LBP-09-3, 69 NRC 139 (2009)

POSSESSION-ONLY LICENSES

with respect to possession, a Part 40 license continues in effect after expiration until decommissioning is completed; CLI-09-1, 69 NRC 1 (2009)

PRECEDENTIAL EFFECT

although the Atomic Safety and Licensing Appeal Board was disbanded in 1991, its decisions still carry precedential value; CLI-09-2, 69 NRC 55 (2009)

licensing boards are bound by Commission and appeal board precedent and therefore are not at liberty to reject the 50-mile proximity presumption; LBP-09-4, 69 NRC 170 (2009)

the peculiar procedural circumstances and the unusual nature of the equities favoring intervenors may combine to render a decision *sui generis*, and as such, it should not be considered precedential; CLI-09-13, 69 NRC 575 (2009)

unreviewed board rulings carry no precedential weight; CLI-09-14, 69 NRC 580 (2009)

PREHEARING CONFERENCES

NRC rules of procedure authorize boards to hold prehearing conferences for the purposes of simplifying or clarifying the issues for hearing, after which a board might admit a revised contention; CLI-09-12, 69 NRC 535 (2009)

PRESIDING OFFICER, AUTHORITY

a request for briefs on legal issues is one of the many tools available to a presiding officer generally in the conduct of a proceeding; CLI-09-14, 69 NRC 580 (2009)

an exceptionally grave issue may be considered in the discretion of the presiding officer, even if untimely presented; CLI-09-5, 69 NRC 115 (2009)

presiding officers have authority to dispose of certain issues on the pleadings; CLI-09-14, 69 NRC 580 (2009)

the Commission or presiding officer may extend a time limit upon a showing of good cause; CLI-09-4, 69 NRC 80 (2009)

PRESUMPTION OF REGULARITY

there is a longstanding presumption, absent strong and concrete evidence otherwise, that government agencies and their employees will do their jobs honestly and properly; CLI-09-14, 69 NRC 580 (2009)

PROPRIETARY INFORMATION

although the SUNSI access procedures do not impose a high threshold for demonstrating need, they must be applied consistent with the principle that it is important to prevent unnecessary disclosure of sensitive information; LBP-09-5, 69 NRC 303 (2009)

if petitioners offer a reason for needing such information material to the findings a licensing board must make and otherwise explain why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention, they would satisfied the need criterion; LBP-09-5, 69 NRC 303 (2009)

petitioner's lack of access to SUNSI may hinder it in its ability to demonstrate why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention, but this does not absolve a petitioner from at least endeavoring to address this criterion; LBP-09-5, 69 NRC 303 (2009)

the procedure for seeking access to SUNSI does not provide a method for general or topical access, but only access to information necessary to meaningfully participate in an adjudicatory proceeding and to provide the basis and specificity of a proffered contention; LBP-09-5, 69 NRC 303 (2009)

SUBJECT INDEX

the requirement to discuss the basis for a proffered contention to obtain access to SUNSI is not to be equated with the discussion that would be necessary to support an admissible contention; LBP-09-5, 69 NRC 303 (2009)

PROXIMITY PRESUMPTION

as long as petitioners reside within an area that could realistically be impacted if an accidental release occurs, it is reasonable and consistent with Atomic Energy Act § 189a to find that they have standing to challenge applicant's safety claims and its environmental analysis under the National Environmental Policy Act; LBP-09-4, 69 NRC 170 (2009)

in cases involving construction or operation of a nuclear power reactor, proximity to the proposed facility has been considered sufficient to establish the requisite standing elements; LBP-09-3, 69 NRC 139 (2009)

licensing boards are bound by Commission and appeal board precedent and therefore are not at liberty to reject the 50-mile presumption; LBP-09-4, 69 NRC 170 (2009)

persons with no actual or imminent claim of injury are not permitted to obtain a hearing; LBP-09-4, 69 NRC 170 (2009)

petitioner organizations have established standing based on their members' proximity to transportation routes, even where it was not possible to predict with accuracy which of its members were most likely to be harmed or the extent of the damage; LBP-09-6, 69 NRC 367 (2009)

proximity alone does not suffice for standing in materials licensing cases; CLI-09-12, 69 NRC 535 (2009) the common thread in decisions applying the 50-mile proximity presumption is a recognition of the potential effects at significant distances from the facility of the accidental release of fissionable materials; LBP-09-4, 69 NRC 170 (2009)

the rationale for the 50-mile presumption does not depend upon the probability that a proposed reactor is likely to generate an accidental release of radioactive materials, but rather the fact that, if such an accident were to occur, it could realistically impact the geographic area within which the petitioners reside; LBP-09-4, 69 NRC 170 (2009)

the ultimate test for standing is not whether NRC's test conforms to that applied by federal courts, but whether NRC's test represents a reasonable construction of section 189a of the Atomic Energy Act; LBP-09-4, 69 NRC 170 (2009)

there is no conflict between judicial concepts of standing and the NRC's 50-mile presumption of standing; LBP-09-4, 69 NRC 170 (2009)

PUBLIC INTEREST ORGANIZATIONS

even if the Commission could waive the application fee for access to safeguards information, the mere fact that petitioners are public interest organizations provides no special reason for departing from well-established NRC practice; CLI-09-4, 69 NRC 80 (2009)

RADIATION MONITORING SYSTEM

interim protective measures to prevent contamination from slag and baghouse dust piles until final decommissioning is completed are discussed; CLI-09-1, 69 NRC 1 (2009)

RADIATION PROTECTION STANDARDS

licensees must use, to the extent practical, procedures and engineering controls based on sound radiation protection principles to achieve occupational doses that are as low as reasonably achievable; CLI-09-14, 69 NRC 580 (2009)

RADIOACTIVE WASTE DISPOSAL

a combined license application must explain how applicant intends to manage low level radioactive waste in the absence of an offsite disposal facility; LBP-09-4, 69 NRC 170 (2009)

a waste confidence rulemaking is not the appropriate instrument for resolving low-level radioactive waste issues, particularly issues of disposal; CLI-09-3, 69 NRC 68 (2009)

contentions concerning an applicant's plan for disposal of Greater-Than-Class-C radioactive waste cannot be admitted because disposal of that type of waste is the responsibility of the federal government; LBP-09-4, 69 NRC 170 (2009)

in a future combined license proceeding, petitioner could proffer an application-specific contention suitable for litigation on the subject of onsite storage of low-level radioactive waste; CLI-09-3, 69 NRC 68 (2009)

SUBJECT INDEX

Part 61 of Title 10 applies only to land disposal facilities that receive waste from others, not to onsite facilities where the licensee intends to store its own low-level radioactive waste; CLI-09-3, 69 NRC 68 (2009)

the questions of the safety and environmental impacts of onsite low-level waste storage are, in the Commission's view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions; CLI-09-3, 69 NRC 68 (2009)

See also Waste Confidence Rule

RADIOACTIVE WASTE STORAGE

an application-specific contention concerning the environmental consequences of the need for extended onsite storage of low-level radioactive waste is admissible if it satisfies the requirements of 10 C.F.R. 2.309(f)(1); LBP-09-4, 69 NRC 170 (2009)

how applicant intends to handle LLRW in the absence of an offsite disposal facility is material to the findings the agency must make on a combined license; LBP-09-3, 69 NRC 139 (2009)

RADIOACTIVE WASTE, HIGH-LEVEL

contentions concerning an applicant's plan for disposal of Greater-Than-Class-C radioactive waste cannot be admitted because disposal of that type of waste is the responsibility of the federal government; LBP-09-4, 69 NRC 170 (2009)

RADIOACTIVE WASTE, LOW-LEVEL

a waste confidence rulemaking is not the appropriate instrument for resolving LLRW issues, particularly issues of disposal; CLI-09-3, 69 NRC 68 (2009)

an application-specific contention concerning the environmental consequences of the need for extended onsite storage of LLRW is admissible if it satisfies the requirements of 10 C.F.R. 2.309(f)(1); LBP-09-4, 69 NRC 170 (2009)

how applicant intends to handle LLRW in the absence of an offsite disposal facility is material to the findings the agency must make on a combined license; LBP-09-3, 69 NRC 139 (2009); LBP-09-4, 69 NRC 170 (2009)

Part 61 of Title 10 applies only to land disposal facilities that receive waste from others, not to onsite facilities where the licensee intends to store its own waste; CLI-09-3, 69 NRC 68 (2009)

the Commission declines to accept the board's suggestion that the Commission consider instituting a "low-level waste confidence" rulemaking proceeding; CLI-09-3, 69 NRC 68 (2009)

the questions of the safety and environmental impacts of onsite low-level waste storage are, in the Commission's view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions; CLI-09-3, 69 NRC 68 (2009)

RADIOLOGICAL CONTAMINATION

a site will be considered for restricted release if further reductions in residual radioactivity necessary to comply with the provisions of 10 C.F.R. 20.1402 would result in net public or environmental harm or need not be made because residual levels associated with the restricted conditions are as low as reasonably achievable; CLI-09-1, 69 NRC 1 (2009)

after completion of decommissioning, neither licensee nor the NRC retains any continuing obligation or jurisdiction, respectively, with respect to a site, unless new information shows that the Part 20 criteria were not met and the residual radioactivity remaining on the site could result in a significant threat to public health and safety; CLI-09-1, 69 NRC 1 (2009)

See also Groundwater Contamination

RADIOLOGICAL EXPOSURE

compliance with limits on radiological exposures, over necessarily long time periods, requires a performance assessment; LBP-09-6, 69 NRC 367 (2009)

licensees must use, to the extent practical, procedures and engineering controls based on sound radiation protection principles to achieve occupational doses that are as low as reasonably achievable; CLI-09-14, 69 NRC 580 (2009)

the geologic repository operations area must meet the requirements of 10 C.F.R. Part 20; CLI-09-14, 69 NRC 580 (2009)

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the preclosure safety analysis for the high-level waste repository must demonstrate that in the event of Category 1 or Category 2 event sequences, prescribed dose limits will be met; CLI-09-14, 69 NRC 580 (2009)

REACTOR DESIGN

a contention raised in a combined license hearing challenging information in a design certification rulemaking, if otherwise admissible, should be referred to the Staff for consideration in the rulemaking, and held in abeyance by the licensing board pending the outcome of the rulemaking; CLI-09-4, 69 NRC 80 (2009); CLI-09-8, 69 NRC 317 (2009); LBP-09-3, 69 NRC 139 (2009)

all nuclear safety and environmental issues concerning severe accident mitigation design alternatives associated with NRC's environmental assessment for the AP1000 design and Appendix 1B of the generic Design Control Document are considered resolved by the Commission; LBP-09-2, 69 NRC 87 (2009)

any contention directed at a design undergoing rulemaking review fails on its face to satisfy the admission requirements because all matters subject of a rulemaking are outside the scope of licensing proceedings; LBP-09-8, 69 NRC 736 (2009)

applicant for a combined license is expressly authorized by NRC's regulations to incorporate by reference a certified design in its license application; LBP-09-2, 69 NRC 87 (2009); LBP-09-8, 69 NRC 736 (2009)

combined license applicants will also have to demonstrate that the site-specific parameters are bounded by the parameters developed for the certified design; LBP-09-2, 69 NRC 87 (2009)

Commission policy of permitting the conduct of an adjudicatory proceeding on a combined license that references a design certification that the Commission has not approved does not violate the Atomic Energy Act of 1954, 10 C.F.R. Part 52, or judicial decisions; CLI-09-4, 69 NRC 80 (2009)

design certification rulemaking and individual combined license adjudicatory proceedings may proceed simultaneously, and issues raised in an adjudicatory proceeding that are appropriately addressed in the generic design certification rulemaking are to be referred to the rulemaking for resolution; CLI-09-8, 69 NRC 317 (2009)

each combined license applicant will have to determine whether it will adopt *in toto* the certified design, or whether it will take exemptions thereto and/or departures therefrom; LBP-09-2, 69 NRC 87 (2009)

failure to frame a safety concern arising from the interaction of the proposed design certification document amendment with the existing certified standard design and/or a facility-specific provision of the COLA leaves the contention as an inadmissible challenge to the Part 52 regulatory framework; LBP-09-3, 69 NRC 139 (2009)

generic issues are to be resolved as part of the design certification rulemaking process, and any concerns related to those issues must be addressed in the rulemaking and not within the scope of a combined license proceeding; LBP-09-8, 69 NRC 736 (2009)

incorporation by reference in the COL application is consistent with NRC rules when an applicant chooses to reference a standard design; CLI-09-8, 69 NRC 317 (2009)

the appropriate path for any petitioner's challenges to proposed reactor design revisions is through participation in those rulemaking proceedings, not through a combined license proceeding; LBP-09-2, 69 NRC 87 (2009)

the process for taking exemptions and departures from a certified design is set forth in 10 C.F.R. Part 52, App. D, § VIII; LBP-09-2, 69 NRC 87 (2009)

REASONABLE ASSURANCE

this term is not quantified as equivalent to a 95% (or any other percent) confidence level, but is based on sound technical judgment of the particulars of a case and on compliance with the Commission's regulations; CLI-09-7, 69 NRC 235 (2009)

to satisfy the reasonable assurance standard for its aging management program, a license renewal applicant must make a showing that meets the preponderance of the evidence threshold of compliance with the applicable regulations, not a 95% confidence level of compliance; CLI-09-7, 69 NRC 235 (2009)

whether the standard is satisfied is based on sound technical judgment applied on a case-by-case basis; LBP-09-6, 69 NRC 367 (2009)

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REDRESSABILITY

- a person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy; CLI-09-9, 69 NRC 331 (2009)
- the increased risk of living within 50 miles of a nuclear power plant constitutes injury-in-fact, is traceable to the challenged action, and is likely to be redressed by a favorable decision that either denies a license or mandates compliance with legal requirements that protect the interests of the petitioners; LBP-09-4, 69 NRC 170 (2009)

REFERRAL OF MOTION

- the Secretary of the Commission has authority to refer a motion to the board for any action the board deems appropriate; CLI-09-5, 69 NRC 115 (2009)
- the Secretary's referral of petitioner's motion to admit a late-filed contention effectively returns jurisdiction to the licensing board to rule on the motion; CLI-09-5, 69 NRC 115 (2009)

REFERRAL OF RULING

- a board may refer a ruling to the Commission if it determines that prompt decision is necessary to prevent detriment to the public interest or unusual delay or expense, or if the ruling involves a novel issue that merits Commission review at the earliest opportunity; CLI-09-6, 69 NRC 128 (2009); CLI-09-13, 69 NRC 575 (2009)

REFERRED RULINGS

- the Commission will review a referred ruling only if it raises significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding; CLI-09-3, 69 NRC 68 (2009); CLI-09-13, 69 NRC 575 (2009)

REGULATIONS

- a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-09-3, 69 NRC 139 (2009)
- all nuclear safety and environmental issues concerning severe accident mitigation design alternatives associated with NRC's environmental assessment for the AP1000 design and Appendix 1B of the generic Design Control Document are considered resolved by the Commission; LBP-09-2, 69 NRC 87 (2009)
- consistency of the generic guidance in NUREG-1757 governing restricted release with the text and intent of the regulations is discussed; CLI-09-1, 69 NRC 1 (2009)
- contentions that directly or indirectly challenge Table S-3 of 10 C.F.R. 51.51 are inadmissible; LBP-09-4, 69 NRC 170 (2009)
- Council on Environmental Quality regulations are not binding on NRC when the agency has not expressly adopted them, but are entitled to considerable deference; LBP-09-7, 69 NRC 613 (2009)
- Council on Environmental Quality regulations state that an environmental impact statement must address both direct and indirect effects of an action; LBP-09-7, 69 NRC 613 (2009)
- in implementing the National Environmental Policy Act, NRC uses the definitions provided in Council on Environmental Quality regulations; LBP-09-7, 69 NRC 613 (2009)
- NRC regulations may not be attacked in individual NRC adjudicatory proceedings, unless the Commission waives the rule at issue for a particular proceeding, or the rule is changed or suspended due to a rulemaking review; CLI-09-3, 69 NRC 68 (2009); CLI-09-10, 69 NRC 521 (2009); LBP-09-6, 69 NRC 367 (2009)
- waiver of a rule or regulation is granted on the sole ground that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation would not serve the purposes for which the rule or regulation was adopted; LBP-09-6, 69 NRC 367 (2009)

REGULATIONS, INTERPRETATION

- a conclusion that something is a "connected action" under 40 C.F.R. 1508.25 does not necessarily inform the type of impact analysis that is performed, whether direct, indirect, or cumulative; LBP-09-7, 69 NRC 613 (2009)
- Part 61 of Title 10 applies only to land disposal facilities that receive waste from others, not to onsite facilities where the licensee intends to store its own low-level radioactive waste; CLI-09-3, 69 NRC 68 (2009)
- section 40.38 of 10 C.F.R. applies exclusively to uranium enrichment facilities; LBP-09-1, 69 NRC 11 (2009)

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section 40.42(d) is written in terms of releasing buildings or areas in accordance with NRC criteria; CLI-09-1, 69 NRC 1 (2009)

the interlocutory review standard in 10 C.F.R. 2.323(f)(1) does not apply to litigants' petitions for interlocutory review; CLI-09-6, 69 NRC 128 (2009)

the purpose of 10 C.F.R. 40.42 is to reduce the potential risk to public health and the environment from radioactive material remaining for long periods of time at materials facilities after licensed activities have ceased; CLI-09-1, 69 NRC 1 (2009)

the unavailability of funding for decommissioning adequate to achieve unrestricted release of a site is not one of the conditions specified in 10 C.F.R. 20.1403(a); CLI-09-1, 69 NRC 1 (2009)

REGULATORY GUIDES

consistency of the generic guidance in NUREG-1757 governing restricted release with the text and intent of the regulations is discussed; CLI-09-1, 69 NRC 1 (2009)

REOPENING A RECORD

a nonparty seeking late intervention after the record has closed must address both the standard for late intervention and the standard for reopening a closed record; CLI-09-5, 69 NRC 115 (2009)

if, within 60 days after pertinent information that would support the framing of a contention first becomes available, intervenors submit a particularized and otherwise admissible contention regarding the construction of the facility, then the contention will be deemed timely without the need to satisfy the balancing test for late-filing requirements; CLI-09-2, 69 NRC 55 (2009)

movant must show that its motion is timely; CLI-09-5, 69 NRC 115 (2009)

proponents of motions seeking to reopen the record bear a heavy burden; CLI-09-2, 69 NRC 55 (2009)

referral of petitioner's motion to admit a late-filed contention effectively returns jurisdiction to the licensing board to rule on the motion but does not reopen the already-closed record; CLI-09-5, 69 NRC 115 (2009)

See also Motions to Reopen

REPLY BRIEFS

a board erred when it disregarded the rule that a reply cannot expand the scope of the arguments set forth in the original hearing request; CLI-09-12, 69 NRC 535 (2009)

allowing new claims in a reply would unfairly deprive other participants of an opportunity to rebut the new claims; LBP-09-6, 69 NRC 367 (2009)

although petitioners may not use their reply pleadings to provide new threshold support for their contentions, they may use their reply to clarify and to develop information included in their initial petition; LBP-09-6, 69 NRC 367 (2009)

except in a proceeding under section 52.103, the requestor/petitioner may file a reply to any answer, but no other written answers or replies will be entertained; LBP-09-6, 69 NRC 367 (2009)

it is proper for a reply to respond to the legal, logical, and factual arguments presented in answers, as long as new issues are not raised; LBP-09-1, 69 NRC 11 (2009)

new bases for a contention cannot be introduced in a reply brief or at 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); CLI-09-7, 69 NRC 235 (2009); CLI-09-12, 69 NRC 535 (2009)

once petitioners LSN compliance has been raised in an answer to an intervention petition, petitioner then has the opportunity to respond to the challenges in its reply; LBP-09-6, 69 NRC 367 (2009)

petitioner is limited to the contention as initially filed and may not rectify its deficiencies through a reply brief or on appeal; CLI-09-14, 69 NRC 580 (2009)

petitioner's reply must narrowly focus upon the legal and factual arguments first presented in its petition and cannot be used as a vehicle to remedy a very deficient petition to which opposing parties have no opportunity to respond; LBP-09-2, 69 NRC 87 (2009); LBP-09-6, 69 NRC 367 (2009)

petitioners may not raise entirely new arguments in a reply brief unless the standards for late-filed contentions are met; CLI-09-7, 69 NRC 235 (2009)

when its Licensing Support Network compliance is challenged, petitioner need only make a straightforward statement in its reply that it has complied with the LSN requirements; LBP-09-6, 69 NRC 367 (2009)

REPORTING REQUIREMENTS

information provided to the Commission by an applicant for a license or by a licensee must be complete and accurate in all material respects; LBP-09-1, 69 NRC 11 (2009)

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REQUEST FOR ACTION

although a petition for review does not challenge anything the boards actually decided, the Commission addresses the merits of the request as an exercise of its ultimate supervisory control over proceedings; CLI-09-10, 69 NRC 521 (2009)
following termination of a proceeding, the proper avenue for a challenge to an existing license is to file a request to modify, suspend, or revoke a license; CLI-09-5, 69 NRC 115 (2009)

REQUEST FOR ADDITIONAL INFORMATION

contention that the mere existence of numerous RAIs constituted *prima facie* evidence that the application is incomplete is rejected; CLI-09-12, 69 NRC 535 (2009)
petitioner may not simply wait for the Staff to identify missing information and then ground a new contention on that request; CLI-09-12, 69 NRC 535 (2009)

RESTRICTED RELEASE

a license is terminated upon the completion of decommissioning; CLI-09-1, 69 NRC 1 (2009)
a site will be considered for restricted release if further reductions in residual radioactivity necessary to comply with the provisions of 10 C.F.R. 20.1402 would result in net public or environmental harm or need not be made because residual levels associated with the restricted conditions are as low as reasonably achievable; CLI-09-1, 69 NRC 1 (2009)
consistency of the generic guidance in NUREG-1757 governing restricted release with the text and intent of the regulations is discussed; CLI-09-1, 69 NRC 1 (2009)
the criteria for acceptability of a site for license termination under restricted conditions are discussed; CLI-09-1, 69 NRC 1 (2009)
until decommissioning is completed, a licensee must limit actions to those related to decommissioning and control access to restricted areas until they are suitable for release; CLI-09-1, 69 NRC 1 (2009)

REVERSAL OF RULING

the Commission reverses the board's admission of two contentions; CLI-09-3, 69 NRC 68 (2009)

REVIEW

ripeness for judicial review is determined on the basis of the fitness of the issue for judicial decision and the hardship to the parties of withholding court consideration; LBP-09-6, 69 NRC 367 (2009)
See also Appellate Review

REVIEW, INTERLOCUTORY

increased litigation delay and expense do not justify interlocutory review of an admissibility decision; CLI-09-6, 69 NRC 128 (2009)
litigation efforts that a litigant considers unnecessary because they relate to a contention that the litigant considers to have been improperly admitted do not affect the basic structure of a proceeding at all, much less in a pervasive and unusual manner; CLI-09-6, 69 NRC 128 (2009)
no instance has occurred in NRC jurisprudence where either the Commission or its boards have ruled that expenses of any kind constituted irreparable injury; CLI-09-6, 69 NRC 128 (2009)
routine rulings on contention admissibility are usually not occasions for the Commission to exercise its authority to step into ongoing licensing board proceedings and undertake interlocutory review; CLI-09-3, 69 NRC 68 (2009)
the Commission grants discretionary interlocutory review only in extraordinary circumstances; CLI-09-6, 69 NRC 128 (2009)
the Commission's exercise its discretion to review a licensing board's interlocutory order stems from its inherent supervisory authority over adjudications and in no way implies that parties have a right to seek interlocutory review on that same ground; CLI-09-6, 69 NRC 128 (2009)
the interlocutory review standard in 10 C.F.R. 2.323(f)(1) does not apply to litigants' petitions for interlocutory review; CLI-09-6, 69 NRC 128 (2009)
the possibility that an interlocutory ruling may be wrong does not in itself justify interlocutory review; CLI-09-6, 69 NRC 128 (2009)
the potential for litigation expense and delay is the kind of burden that licensees and applicants voluntarily assume when filing applications with the Commission; CLI-09-6, 69 NRC 128 (2009)
the presiding officer may refer a ruling to the Commission if, in the presiding officer's judgment, prompt decision is necessary to prevent detriment to the public interest or unusual delay or expense; CLI-09-6, 69 NRC 128 (2009)

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the presiding officer may refer a ruling to the Commission if the ruling involves a novel issue that merits Commission review at the earliest opportunity; CLI-09-6, 69 NRC 128 (2009)

were the Commission to permit litigants to successfully invoke interlocutory review based merely on an assertion that the licensing board erred in admitting or excluding a contention, then the Commission would be opening the floodgates to a potential deluge of interlocutory appeals from any number of participants who lose admissibility rulings; CLI-09-6, 69 NRC 128 (2009)

See also Appeals, Interlocutory; Appellate Review

REVIEW, SUA SPONTE

the Commission has authority to review board rulings *sua sponte*, in the exercise of its inherent supervisory authority over NRC adjudications, regardless of whether the Commission accepts the referral; CLI-09-3, 69 NRC 68 (2009)

the Commission itself may exercise its discretion to review a licensing board's interlocutory order if the Commission wants to address a novel or important issue; CLI-09-6, 69 NRC 128 (2009)

REVOCAION OF LICENSES

lack of either technical competence or character qualifications on the part of licensee or applicant is sufficient grounds for the revocation of a license or the denial of a license application; LBP-09-6, 69 NRC 367 (2009)

RISKS

events having a less than a one in one million probability of occurring are not credible events; LBP-09-4, 69 NRC 170 (2009)

events that could cause radioactive releases, including aircraft impact events, are included within the set of design basis events required to be analyzed and designed against only if the probability of such events is above one in one million per year; LBP-09-2, 69 NRC 87 (2009)

RULE OF REASON

consideration of environmental impacts need not address every impact that could possibly result, but rather only those that are reasonably foreseeable or have some likelihood of occurring; LBP-09-7, 69 NRC 613 (2009)

if the accident sought to be considered is sufficiently unlikely, such that it can be characterized fairly as remote and speculative, then consideration under NEPA is not required as a matter of law; LBP-09-4, 69 NRC 170 (2009)

it would be inconsistent with the National Environmental Policy Act to require that the cumulative impacts analysis individually analyze the effects of remote facilities absent a demonstration that such additional effort would lead to a different conclusion; LBP-09-4, 69 NRC 170 (2009)

NEPA analyses are subject to a rule of reason, but it is necessary to have a criterion upon which reasonableness may be determined; LBP-09-4, 69 NRC 170 (2009)

RULEMAKING

a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-09-2, 69 NRC 87 (2009); LBP-09-3, 69 NRC 139 (2009); LBP-09-8, 69 NRC 736 (2009)

a state could seek to have licensing proceedings suspended pending an NRC decision on its rulemaking petition, if it participated in the proceedings as an interested state; CLI-09-10, 69 NRC 521 (2009)

a waste confidence rulemaking is not the appropriate instrument for resolving low-level radioactive waste issues, particularly issues of disposal; CLI-09-3, 69 NRC 68 (2009)

an otherwise admissible contention that raises challenges to information in a design certification rulemaking should be referred to the Staff for resolution in the rulemaking; CLI-09-4, 69 NRC 80 (2009); CLI-09-8, 69 NRC 317 (2009)

any contention directed at a design undergoing rulemaking review fails on its face to satisfy the admission requirements because all matters subject of a rulemaking are outside the scope of licensing proceedings; LBP-09-8, 69 NRC 736 (2009)

design certification rulemaking and individual combined license adjudicatory proceedings may proceed simultaneously, and issues raised in an adjudicatory proceeding that are appropriately addressed in the generic design certification rulemaking are to be referred to the for resolution; CLI-09-8, 69 NRC 317 (2009)

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NRC rules recognize the possibility of new and significant information calling into question prior generic findings, and a petition for rulemaking is one means to alert the Commission to new information that may render a GEIS finding incorrect; CLI-09-10, 69 NRC 521 (2009)

petitioners and others who believe the Waste Confidence Rule needs revision must use rulemaking proceedings to express their concerns; LBP-09-4, 69 NRC 170 (2009)

the appropriate path for any petitioner's challenges to proposed reactor design revisions is through participation in those rulemaking proceedings, not through a combined license proceeding; LBP-09-2, 69 NRC 87 (2009)

the Commission declines to accept the board's suggestion that the Commission consider instituting a "low-level waste confidence" rulemaking proceeding; CLI-09-3, 69 NRC 68 (2009)

the need for design features to guard against design basis threats is outside the scope of a combined license proceeding because it is the subject of an ongoing rulemaking; LBP-09-2, 69 NRC 87 (2009)

the universe of potential contentions in a combined license proceeding includes site-specific contentions that do not implicate issues appropriately considered in a design certification rulemaking; CLI-09-8, 69 NRC 317 (2009)

RULES OF PRACTICE

a board has a duty not only to resolve contested issues, but to articulate in reasonable detail the basis for the course of action chosen; CLI-09-14, 69 NRC 580 (2009)

a board may refer a ruling to the Commission if it determines that prompt decision is necessary to prevent detriment to the public interest or unusual delay or expense, or if the ruling involves a novel issue that merits Commission review at the earliest opportunity; CLI-09-13, 69 NRC 575 (2009)

a board may view a petitioner's supporting information in a light favorable to the petitioner, but it cannot do so by ignoring contention admissibility rules, which require the petitioner (not the board) to supply all required elements for a valid intervention petition; CLI-09-7, 69 NRC 235 (2009)

a contention raised in a combined license hearing challenging information in a design certification rulemaking, if otherwise admissible, should be referred to the Staff for consideration in the rulemaking, and held in abeyance by the licensing board pending outcome of rulemaking; LBP-09-3, 69 NRC 139 (2009)

a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible; LBP-09-2, 69 NRC 87 (2009); LBP-09-3, 69 NRC 139 (2009); LBP-09-8, 69 NRC 736 (2009)

a contention that attacks applicable statutory requirements, challenges the basic structure of the NRC's regulatory process, or merely expresses generalized policy grievances is not appropriate for a board hearing; LBP-09-3, 69 NRC 139 (2009); LBP-09-6, 69 NRC 367 (2009)

a contention that simply states the petitioner's views about what regulatory policy should be does not present a litigable issue; LBP-09-3, 69 NRC 139 (2009)

a late-filed document that supports or provides a basis for a proposed contention should be considered using the late-filing factors of 10 C.F.R. 2.309(c) and 2.309(f)(2); CLI-09-12, 69 NRC 535 (2009)

a party's failure to raise a matter in its proposed findings of fact and conclusions of law seemingly waives this matter as grounds for its challenge to the final environmental impact statement; LBP-09-7, 69 NRC 613 (2009)

absent a waiver, no rule or regulation of the Commission is subject to attack in any adjudicatory proceeding; CLI-09-3, 69 NRC 68 (2009); LBP-09-6, 69 NRC 367 (2009)

affidavits by an individual with standing authorizing an organization to represent him must be filed with specific reference to the proceeding in which standing is sought for the organization; CLI-09-9, 69 NRC 331 (2009)

all nuclear safety and environmental issues concerning severe accident mitigation design alternatives associated with NRC's environmental assessment for the AP1000 design and Appendix 1B of the generic Design Control Document are considered resolved by the Commission; LBP-09-2, 69 NRC 87 (2009)

all proffered contentions must be within the scope of the proceeding as defined by the Commission in its initial hearing notice and order referring the proceeding to the licensing board; LBP-09-3, 69 NRC 139 (2009)

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although a board may appropriately view a petitioner's supporting information in a light favorable to the petitioner, failure to provide such information regarding a proffered contention requires that the contention be rejected; LBP-09-3, 69 NRC 139 (2009)

although a petitioner does not have to prove its contention at the admissibility stage, mere notice pleading is insufficient; LBP-09-6, 69 NRC 367 (2009)

although Article III of the Constitution does not constrain the NRC hearing process, and NRC hearings therefore are not governed by judicially created standing doctrine, the Commission nonetheless has generally looked to judicial concepts of standing where appropriate to determine those interests affected within the meaning of section 189a of the Atomic Energy Act; LBP-09-1, 69 NRC 11 (2009)

although petitioner bears the burden of demonstrating standing, in ruling on standing a licensing board is to construe the petition in favor of the petitioner; LBP-09-1, 69 NRC 11 (2009)

although the SUNSI access procedures do not impose a high threshold for demonstrating need, they must be applied consistent with the principle that it is important to prevent unnecessary disclosure of sensitive information; LBP-09-5, 69 NRC 303 (2009)

an admissible contention must raise an issue that is both within the scope of the proceeding, generally defined by the hearing notice, and material to the findings the NRC must make to support the action involved; LBP-09-6, 69 NRC 367 (2009)

an admissible contention must satisfy the six pleading requirements of 10 C.F.R. 2.309(f)(1); LBP-09-3, 69 NRC 139 (2009); LBP-09-6, 69 NRC 367 (2009)

an application-specific contention concerning the environmental consequences of the need for extended onsite storage of low-level radioactive waste is admissible if it satisfies the requirements of 10 C.F.R. 2.309(f)(1); LBP-09-4, 69 NRC 170 (2009)

an interested state or local governmental body that has not been admitted as a party under 10 C.F.R. 2.309 shall be afforded a reasonable opportunity to participate in a hearing; LBP-09-2, 69 NRC 87 (2009)

an organization seeking to intervene in a representational capacity must demonstrate that the licensing action will affect at least one of its members, identify that member by name and address, and show that it is authorized by that member to request a hearing on his or her behalf; LBP-09-6, 69 NRC 367 (2009)

an organization that wishes to intervene in a proceeding may do so either in its own right by demonstrating harm to its organizational interests, or in a representational capacity by demonstrating harm to its members; LBP-09-2, 69 NRC 87 (2009)

any affected unit of local government need not address standing in the high-level waste proceeding, but rather shall be considered a party provided that it files at least one admissible contention in accordance with 10 C.F.R. 2.309(f); LBP-09-6, 69 NRC 367 (2009)

any contention directed at a design undergoing rulemaking review fails on its face to satisfy the admission requirements because all matters subject of a rulemaking are outside the scope of licensing proceedings; LBP-09-8, 69 NRC 736 (2009)

any contention that fails to directly controvert the application or that mistakenly asserts that the application does not address a relevant issue can be dismissed; LBP-09-3, 69 NRC 139 (2009)

any contention that falls outside the specified scope of the proceeding must be rejected; LBP-09-3, 69 NRC 139 (2009)

any supporting material provided by a petitioner, including those portions of the material that are not relied upon, is subject to board scrutiny; LBP-09-3, 69 NRC 139 (2009)

as the proponent of the agency action at issue, applicant generally has the burden of proof in a licensing proceeding, but when NEPA contentions are involved, the burden shifts to the Staff, because NRC, not an applicant, has the burden of complying with NEPA; LBP-09-7, 69 NRC 613 (2009)

at the admissibility stage, petitioner does not have to prove its contentions and boards do not adjudicate disputed facts; LBP-09-6, 69 NRC 367 (2009)

at the appropriate point in the overall COLA/DCD process, an interested party will have the opportunity to petition for intervention to raise matters that are material to the decision the NRC must make regarding the licensing of the proposed nuclear units; LBP-09-2, 69 NRC 87 (2009)

at the contention pleading stage, a board simply has to find that each of the elements of contention admissibility is satisfied, and need not weigh the merits of the petitioner's arguments; CLI-09-9, 69 NRC 331 (2009)

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at the contention pleading stage, arguments that petitioners' claims are unfounded go to the merits of the contention and do not show that there is no genuine dispute over the substance of the contention; CLI-09-9, 69 NRC 331 (2009)

because Intervenor's inability to satisfy the contention admissibility rules is due to factors beyond their control, the Commission declines to require them to meet both the strict late-filing requirements and the even stricter reopening standards if they identify safety issues during the upcoming years of ongoing construction of a fuel fabrication facility; CLI-09-2, 69 NRC 55 (2009)

because Staff relies heavily on applicant's environmental report in preparing the environmental impact statement, should applicant become a proponent of a particular challenged position set forth in the EIS, applicant also has the burden on that matter; LBP-09-7, 69 NRC 613 (2009)

boards should treat as a cognizable new consideration an attack on the Yucca Mountain environmental impact statements based on significant and substantial information that, if true, would render the statements inadequate; LBP-09-6, 69 NRC 367 (2009)

Commission pleading rules permit contentions that raise issues of law as well as contentions that raise issues of fact; CLI-09-14, 69 NRC 580 (2009)

Commission regulations do not contemplate filing a vague, unsupported pleading as a placeholder for a more detailed pleading to follow; CLI-09-5, 69 NRC 115 (2009)

contention admissibility requirements are deliberately strict, and any contention that does not satisfy the requirements will be rejected; CLI-09-14, 69 NRC 580 (2009)

contention alleging foreign ownership of applicant, failure to disclose, and various ramifications of such ownership, is admissible; LBP-09-1, 69 NRC 11 (2009)

contention requirements were never intended to be turned into a fortress to deny intervention; LBP-09-6, 69 NRC 367 (2009)

contentions are comparable to neither "forms of relief" nor Article III "claims," but are instead comparable to various "grounds" that may be asserted in opposition to a proposed agency action at issue; LBP-09-1, 69 NRC 11 (2009)

contentions concerning an applicant's plan for disposal of Greater-Than-Class-C radioactive waste cannot be admitted because disposal of that type of waste is the responsibility of the federal government; LBP-09-4, 69 NRC 170 (2009)

contentions for which petitioners have only what amounts to generalized suspicions, hoping to substantiate them later, are barred; LBP-09-6, 69 NRC 367 (2009)

contentions that advocate more or less stringent requirements than the NRC rules impose, otherwise seek to litigate a generic determination that the Commission has established by rulemaking, or raise a matter that is or is about to become the subject of rulemaking are barred; LBP-09-6, 69 NRC 367 (2009)

contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking are inadmissible; LBP-09-3, 69 NRC 139 (2009)

contentions that directly or indirectly challenge Table S-3 of 10 C.F.R. 51.51 are inadmissible; LBP-09-4, 69 NRC 170 (2009)

contentions that do not satisfy the requirements of 10 C.F.R. 2.309(f)(1) must be rejected; CLI-09-8, 69 NRC 317 (2009)

decisions on nontimely filings require a balancing of the eight factors set forth in 10 C.F.R. 2.309(c)(1), the first of which, good cause for failure to file on time, is the most important; CLI-09-7, 69 NRC 235 (2009)

each proposed new contention must satisfy the requirements of 10 C.F.R. 2.309 (f)(1)(i)-(vi); CLI-09-5, 69 NRC 115 (2009)

establishing standing for a contention involves a showing of a concrete and particularized injury that is fairly traceable to the challenged action and likely to be redressed by a favorable decision; LBP-09-1, 69 NRC 11 (2009)

failing to provide information required under 10 C.F.R. 2.309(f)(1) bars admission of the contention; CLI-09-7, 69 NRC 235 (2009)

failure to comply with any of the contention pleading requirements of 10 C.F.R. 2.309(f) is grounds for dismissing a contention; LBP-09-3, 69 NRC 139 (2009)

failure to comply with pleading requirements for late filings constitutes sufficient grounds for rejecting intervention and hearing requests; CLI-09-7, 69 NRC 235 (2009)

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- filing of a new contention on the basis of the draft or final environmental impact statement where that document contains information that differs significantly from the information that was previously available is allowed; CLI-09-12, 69 NRC 535 (2009)
- for contentions to be admissible, the subject matter of a contention must impact the grant or denial of a pending license application; LBP-09-3, 69 NRC 139 (2009)
- health effects of arsenic contamination of drinking water from mining operations are admissible in materials license amendment proceedings; LBP-09-1, 69 NRC 11 (2009)
- if petitioner neglects to provide the requisite support for its contentions, it is not within the board's power to make assumptions of fact that favor petitioner, nor may the board supply information that is lacking; LBP-09-3, 69 NRC 139 (2009)
- if petitioners offer a reason for needing safeguards information material to the findings a licensing board must make and otherwise explain why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention, they would satisfy the need criterion; LBP-09-5, 69 NRC 303 (2009)
- if, within 60 days after pertinent information that would support the framing of a contention first becomes available, intervenors submit a particularized and otherwise admissible contention regarding the construction of the facility, then the contention will be deemed timely without the need to satisfy the balancing test for late-filing requirements; CLI-09-2, 69 NRC 55 (2009)
- in a materials licensing proceeding, petitioners have the burden to show a specific and plausible means whereby the licensing decision may harm them; CLI-09-9, 69 NRC 331 (2009)
- in assessing a petition to determine whether the requirements for standing are met, the board construes the petition in favor of the petitioner; LBP-09-2, 69 NRC 87 (2009); LBP-09-3, 69 NRC 139 (2009)
- in cases involving construction or operation of a nuclear power reactor, proximity to the proposed facility has been considered sufficient to establish the requisite standing elements; LBP-09-3, 69 NRC 139 (2009)
- in determining whether a petitioner has established standing, the board must construe the petition in favor of the petitioner; LBP-09-6, 69 NRC 367 (2009)
- in determining whether an individual or organization should be granted party status in a proceeding based on standing as of right, the agency applies contemporaneous judicial standing concepts; LBP-09-1, 69 NRC 11 (2009); LBP-09-3, 69 NRC 139 (2009); LBP-09-6, 69 NRC 367 (2009)
- in evaluating petitions to intervene, licensing boards are not free to ignore the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); CLI-09-8, 69 NRC 317 (2009)
- in ruling on petitions to intervene in the high-level waste proceeding, boards must consider any failure of the petitioner to participate as a potential party in the pre-license application phase under 10 C.F.R. Part 2, Subpart J; LBP-09-6, 69 NRC 367 (2009)
- in situations in which a board denies a petition to intervene in its entirety or grants a petition to intervene that, according to an opposing litigant, should have been denied in its entirety, the losing litigant has a right to Commission review; CLI-09-6, 69 NRC 128 (2009)
- in the circumstances of the high-level waste proceeding, the criteria and procedures of 10 C.F.R. 2.326 are either irrelevant or redundant; LBP-09-6, 69 NRC 367 (2009)
- in the high-level waste proceeding, the Commission conferred standing as of right on certain parties; LBP-09-6, 69 NRC 367 (2009)
- increased litigation delay and expense do not justify interlocutory review of an admissibility decision; CLI-09-6, 69 NRC 128 (2009)
- interlocutory review of the presiding officer's decision will be granted where the decision either threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review, or affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-09-2, 69 NRC 55 (2009); CLI-09-9, 69 NRC 331 (2009)
- interlocutory rulings may be reviewed, if necessary, on appeals from partial initial decisions or other final appealable orders; CLI-09-6, 69 NRC 128 (2009)
- intervenor is not required to make its case at the contention stage of the proceeding, but rather to indicate what facts or expert opinions of which it is aware at that point in time that provide the basis for its contention; LBP-09-1, 69 NRC 11 (2009)

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intervenor's concise statement of alleged facts that support the contention and reliance on various parts of the application itself satisfy the requirement that mandates references to specific portions of the application; LBP-09-1, 69 NRC 11 (2009)

intervenor has a regulatory burden to present facts or expert opinion to support their contentions; CLI-09-2, 69 NRC 55 (2009); LBP-09-3, 69 NRC 139 (2009)

intervention is permitted in the high-level waste repository proceeding by the state and local governmental body in which the geologic repository operations area is located, and by any affected federally recognized Indian tribe; LBP-09-6, 69 NRC 367 (2009)

it is not acceptable in NRC practice for petitioner to claim standing based on vague assertions, and when that fails, to attempt to repair the defective pleading with fresh details offered for the first time in its reply; LBP-09-2, 69 NRC 87 (2009)

it is not necessary for petitioners to allege facts under section 2.309(f)(1)(v) or to provide an affidavit that sets out the factual and/or technical bases under section 51.109(a)(2) to support a purely legal contention; CLI-09-14, 69 NRC 580 (2009)

it is proper for a reply to respond to the legal, logical, and factual arguments presented in answers, as long as new issues are not raised; LBP-09-1, 69 NRC 11 (2009)

licensing boards are bound by Commission and appeal board precedent and therefore are not at liberty to reject the 50-mile proximity presumption; LBP-09-4, 69 NRC 170 (2009)

licensing boards are not authorized to admit conditionally, for any reason, contentions that fall short of meeting the specificity requirements set forth in NRC procedural rules; CLI-09-2, 69 NRC 55 (2009)

litigation efforts that a litigant considers unnecessary because they relate to a contention that the litigant considers to have been improperly admitted do not affect the basic structure of a proceeding at all, much less in a pervasive and unusual manner; CLI-09-6, 69 NRC 128 (2009)

material provided in support of a contention will be carefully examined by the board to confirm that on its face it does supply adequate support for the contention; LBP-09-3, 69 NRC 139 (2009)

neither mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention; LBP-09-3, 69 NRC 139 (2009)

new bases may not be introduced in a reply brief unless they meet the late-filing criteria set forth in our regulations; CLI-09-12, 69 NRC 535 (2009)

new or amended contentions may be filed only with leave of the presiding officer upon a showing that satisfies the three criteria set out in 10 C.F.R. 2.309(f)(2); CLI-09-7, 69 NRC 235 (2009)

not all of the contention admissibility requirements of 10 C.F.R. 2.309(f)(1) necessarily apply to legal-issue contentions; LBP-09-6, 69 NRC 367 (2009)

notice pleading is expressly prohibited; CLI-09-5, 69 NRC 115 (2009)

NRC intervention rules are strict by design; LBP-09-1, 69 NRC 11 (2009)

petitioner may not be granted party status in the high-level waste proceeding if it cannot demonstrate substantial and timely compliance with the requirements in 10 C.F.R. 2.1003 concerning the availability of documentary material on the Licensing Support Network; LBP-09-6, 69 NRC 367 (2009)

petitioners and others who believe the Waste Confidence Rule needs revision must use rulemaking proceedings to express their concerns; LBP-09-4, 69 NRC 170 (2009)

petitioners are not required to show standing for each contention separately; LBP-09-1, 69 NRC 11 (2009)

petitioner's lack of access to SUNSI may hinder it in its ability to demonstrate why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention, but this does not absolve a petitioner from at least endeavoring to address this criterion; LBP-09-5, 69 NRC 303 (2009)

petitioners must offer specific contentions on material issues, supported by alleged facts or expert opinion; CLI-09-8, 69 NRC 317 (2009)

petitioners must provide a clear statement as to the basis for the contentions and submit supporting information and references to specific documents and sources that establish the validity of the contention; CLI-09-8, 69 NRC 317 (2009)

petitioners must raise NEPA contentions in response to the environmental report, rather than await the agency's draft environmental impact statement; LBP-09-4, 69 NRC 170 (2009)

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petitioners need not show a nexus between interest upon which standing is based and the substance of their proposed contentions; CLI-09-9, 69 NRC 331 (2009)

petitioners will not be denied the opportunity to participate in a proceeding because of an error that can easily be corrected and that has caused no prejudice to any other participant; LBP-09-4, 69 NRC 170 (2009)

properly formulated contentions must focus on the license application in question, challenging either specific portions of or alleged omissions from the application so as to establish that a genuine dispute exists with the applicant on a material issue of law or fact; LBP-09-3, 69 NRC 139 (2009)

proponents of motions to reopen the record bear a heavy burden; CLI-09-2, 69 NRC 55 (2009)

proximity alone does not suffice for standing in materials licensing cases; CLI-09-12, 69 NRC 535 (2009)

requests for rule waiver or exception must be accompanied by an affidavit that identifies with particularity the special circumstances alleged to justify the waiver or exception requested; LBP-09-6, 69 NRC 367 (2009)

requirement to show distinct new harm from a license amendment application would not preclude standing to contest commencement of new operations at a separate site, where petitioner showed potential for harm to himself from new operation; CLI-09-12, 69 NRC 535 (2009)

simply attaching material or documents as a basis for a contention, without setting forth an explanation of that information's significance, is inadequate to support the admission of the contention; LBP-09-3, 69 NRC 139 (2009)

six requirements must be satisfied for a contention to be admissible; LBP-09-8, 69 NRC 736 (2009)

Subpart G hearing procedures apply only to certain enumerated types of proceedings, not including materials license proceedings; LBP-09-1, 69 NRC 11 (2009)

SUNSI requests need not be accompanied by affidavits or include lengthy, detailed justifications addressing the likelihood of standing; LBP-09-5, 69 NRC 303 (2009)

SUNSI requests need to include the name and address of the potential party and a description of the potential party's particularized interest that could be harmed by the proposed licensing action sufficient to demonstrate a reasonable basis to conclude he or she could likely establish standing; LBP-09-5, 69 NRC 303 (2009)

support for a contention 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; LBP-09-6, 69 NRC 367 (2009)

the Commission defers to boards' determinations on the admissibility of contentions absent a finding of error of law or abuse of discretion; CLI-09-8, 69 NRC 317 (2009); CLI-09-12, 69 NRC 535 (2009)

the Commission does not entertain on appeal arguments not raised before a licensing board; CLI-09-12, 69 NRC 535 (2009)

the Commission gives a board's judgment on determinations of standing substantial deference absent a clear misapplication of facts or law; CLI-09-12, 69 NRC 535 (2009)

the Commission grants discretionary interlocutory review only in extraordinary circumstances; CLI-09-6, 69 NRC 128 (2009)

the Commission has authority to review board rulings *sua sponte*, in the exercise of its inherent supervisory authority over NRC adjudications, regardless of whether the Commission accepts the referral; CLI-09-3, 69 NRC 68 (2009)

the Commission is entitled to review the record itself and amplify the board's findings; CLI-09-14, 69 NRC 580 (2009)

the Commission itself may exercise its discretion to review a licensing board's interlocutory order if the Commission wants to address a novel or important issue; CLI-09-6, 69 NRC 128 (2009)

the Commission will review referred rulings only if the referral raises significant and novel legal or policy issues, and resolution of the issues would materially advance the orderly disposition of the proceeding; CLI-09-3, 69 NRC 68 (2009); CLI-09-13, 69 NRC 575 (2009)

the Commission's exercise of its discretion to review a licensing board's interlocutory order stems from its inherent supervisory authority over adjudications and in no way implies that parties have a right to seek interlocutory review on that same ground; CLI-09-6, 69 NRC 128 (2009)

the common thread in decisions applying the 50-mile proximity presumption is a recognition of the potential effects at significant distances from the facility of the accidental release of fissionable materials; LBP-09-4, 69 NRC 170 (2009)

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- the increased risk of living within 50 miles of a nuclear power plant constitutes injury-in-fact, is traceable to the challenged action, and is likely to be redressed by a favorable decision that either denies a license or mandates compliance with legal requirements that protect the interests of the petitioners; LBP-09-4, 69 NRC 170 (2009)
- the interlocutory review standard in 10 C.F.R. 2.323(f)(1) does not apply to litigants' petitions for interlocutory review; CLI-09-6, 69 NRC 128 (2009)
- the member of a organization that seeks standing must qualify for standing in his or her own right, and the interests that the organization seeks to protect must be germane to its own purpose; LBP-09-6, 69 NRC 367 (2009)
- the possibility that an interlocutory ruling may be wrong does not in itself justify interlocutory review; CLI-09-6, 69 NRC 128 (2009)
- the potential for litigation expense and delay is the kind of burden that licensees and applicants voluntarily assume when filing applications with the Commission; CLI-09-6, 69 NRC 128 (2009)
- the presiding officer may refer a ruling to the Commission if the ruling involves a novel issue that merits Commission review at the earliest opportunity or a prompt decision is necessary to prevent detriment to the public interest or unusual delay or expense; CLI-09-6, 69 NRC 128 (2009)
- the procedure for seeking access to SUNSI does not provide a method for general or topical access, but only access to information necessary to meaningfully participate in an adjudicatory proceeding and to provide the basis and specificity of a proffered contention; LBP-09-5, 69 NRC 303 (2009)
- the proximity presumption does not permit persons with no actual or imminent claim of injury to obtain a hearing; LBP-09-4, 69 NRC 170 (2009)
- the rationale for the 50-mile presumption does not depend upon the probability that a proposed reactor is likely to generate an accidental release of radioactive materials, but rather the fact that, if such an accident were to occur, it could realistically impact the geographic area within which the petitioners reside; LBP-09-4, 69 NRC 170 (2009)
- the requirement of materiality often dictates that any contention alleging deficiencies or errors in an application also indicate some significant link between the claimed deficiency and either the health and safety of the public or the environment; LBP-09-3, 69 NRC 139 (2009)
- the requirement to discuss the basis for a proffered contention to obtain access to SUNSI is not to be equated with the discussion that would be necessary to support an admissible contention; LBP-09-5, 69 NRC 303 (2009)
- the source of the practice in NRC proceedings of referring to judicial standing concepts is a 1976 Commission decision in which it affirmed the Appeal Board's determination that petitioners in the case did not meet the judicial standing test; LBP-09-1, 69 NRC 11 (2009)
- the standard of review in an appeal from an NRC Staff denial of a SUNSI request is *de novo*; LBP-09-5, 69 NRC 303 (2009)
- the ultimate test for standing is not whether NRC's test conforms to that applied by federal courts, but whether NRC's test represents a reasonable construction of section 189a of the Atomic Energy Act; LBP-09-4, 69 NRC 170 (2009)
- there is no conflict between judicial concepts of standing and the NRC's 50-mile presumption of standing; LBP-09-4, 69 NRC 170 (2009)
- there is no requirement for any nexus between an asserted injury and a contention; LBP-09-1, 69 NRC 11 (2009)
- to intervene in the high-level waste repository proceeding, petitioner must establish that it has standing, be able to demonstrate substantial and timely Licensing Support Network compliance, and proffer at least one admissible contention; LBP-09-6, 69 NRC 367 (2009)
- to satisfy the likelihood of establishing standing criteria in the context of a SUNSI request, petitioner organizations are required to provide sufficient information to allow the NRC Staff to conclude that the requirements for standing could likely be satisfied; LBP-09-5, 69 NRC 303 (2009)
- to the extent applicant may be subject to unreasonable or burdensome discovery requests in the future, it is free to seek relief from the board, which has ample authority to prevent or modify unreasonable discovery demands; CLI-09-6, 69 NRC 128 (2009)
- waiver of a rule or regulation is granted on the sole ground that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation would not serve the purposes for which the rule or regulation was adopted; LBP-09-6, 69 NRC 367 (2009)

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were the Commission to permit litigants to successfully invoke interlocutory review based merely on an assertion that the licensing board erred in admitting or excluding a contention, then the Commission would be opening the floodgates to a potential deluge of interlocutory appeals from any number of participants who lose admissibility rulings; CLI-09-6, 69 NRC 128 (2009)

when a participant fails to meet its obligations, a board should consider the imposition of sanctions against the offending party; LBP-09-1, 69 NRC 11 (2009)

when an entity seeks to intervene on behalf of its members, that entity must show that it has an individual member who can fulfill all the necessary standing elements and has authorized the organization to represent those interests; LBP-09-3, 69 NRC 139 (2009)

when an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization; LBP-09-6, 69 NRC 367 (2009)

where a petitioner is not conferred automatic standing in the high-level waste proceeding, a petition to intervene must provide information supporting petitioner's claim to standing, including the nature of petitioner's right under the governing statutes to be made a party, the nature of petitioner's interest in the proceeding, and the possible effect of any decision or order on petitioner's interest; LBP-09-6, 69 NRC 367 (2009)

where there is no obvious potential for offsite harm, petitioner must show a specific and plausible means of how the challenged action may harm him or her; CLI-09-9, 69 NRC 331 (2009)

RULES OF PROCEDURE

arguments on a separate matter, which petitioner adopts in a motion for reconsideration but could have made earlier, do not provide a compelling substantive basis for reconsidering a decision; CLI-09-8, 69 NRC 317 (2009)

even if late-filed contention criteria are satisfied, proposed contentions still must meet the threshold admissibility standards contained in 10 C.F.R. 2.309(f)(1); CLI-09-7, 69 NRC 235 (2009)

grant of petitions for review is discretionary, giving due weight to the existence of a substantial question with respect to the five considerations listed in 10 C.F.R. 2.341(b)(4); CLI-09-7, 69 NRC 235 (2009)

motions to reopen are governed by 10 C.F.R. 2.326, which requires satisfaction of three listed criteria and that the motion be accompanied by an affidavit that meets certain specific requirements; CLI-09-7, 69 NRC 235 (2009)

motions to reopen must be accompanied by affidavits of qualified experts presenting the factual and/or technical bases for the claim that there is a significant safety issue, together with evidence that satisfies NRC admissibility standards; CLI-09-7, 69 NRC 235 (2009)

new bases for a contention cannot be introduced in a reply brief or at 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); CLI-09-7, 69 NRC 235 (2009)

NRC rules do not provide for multiple requests for reconsideration of the same decision; CLI-09-8, 69 NRC 317 (2009)

petitioners may not raise entirely new arguments in a reply brief unless the standards for late-filed contentions are met; CLI-09-7, 69 NRC 235 (2009)

petitioners must examine the publicly available material and set forth their claims and the support for their claims at the outset; CLI-09-7, 69 NRC 235 (2009)

the burden of participating in a proceeding is not a harm that can form the basis for holding a proceeding in abeyance; CLI-09-8, 69 NRC 317 (2009)

the burden of satisfying the reopening requirements is a heavy one, and proponents of a reopening motion bear the burden of meeting all of these requirements; CLI-09-7, 69 NRC 235 (2009)

SAFEGUARDS INFORMATION

a 10-day deadline from the date of the hearing notice is reasonable for filing requests for access to safeguards information or sensitive, unclassified, nonsafeguards information; CLI-09-4, 69 NRC 80 (2009)

even if the Commission could waive the application fee for access to safeguards information, the mere fact that petitioners are public interest organizations provides no special reason for departing from well-established NRC practice; CLI-09-4, 69 NRC 80 (2009)

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NRC is explicitly prohibited by law from paying the expenses of or otherwise compensating intervenors, and thus cannot grant petitioners funds to prepare requests for access to safeguards information or sensitive unclassified nonsafeguards information; CLI-09-4, 69 NRC 80 (2009)
petitioners' request for additional information on redacted portions of the combined license application is denied because the public record indicates the nature of the redacted information; CLI-09-4, 69 NRC 80 (2009)

the condition that requires investigation of an individual's character to grant access to restricted data is not linked to the general license criteria; LBP-09-6, 69 NRC 367 (2009)
the fee for access to SGI documents is used by NRC to pay the costs it incurs in determining whether the individual should be granted access to SGI; CLI-09-4, 69 NRC 80 (2009)
the newness of a deadline, along with petitioners' companion requests for additional resources to support their requests for such safeguards information justify a 10-day extension to request access to the information; CLI-09-4, 69 NRC 80 (2009)

SAFETY

the questions of the safety and environmental impacts of onsite low-level waste storage are, in the Commission's view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions; CLI-09-3, 69 NRC 68 (2009)

SAFETY ANALYSIS

a preclosure safety analysis must be performed for the high-level waste repository and it must demonstrate, among other things, that the requirements of 10 C.F.R. 63.111(a) are met; CLI-09-14, 69 NRC 580 (2009)
the preclosure safety analysis for the high-level waste repository must demonstrate that in the event of Category 1 or Category 2 event sequences, prescribed dose limits will be met; CLI-09-14, 69 NRC 580 (2009)

SAFETY ISSUES

a new issue is raised only when the argument itself (as distinct from its chances of success) was not apparent at the time of the application; CLI-09-7, 69 NRC 235 (2009)
new information concerning safety may be new evidence, but not necessarily raise a new issue; CLI-09-7, 69 NRC 235 (2009)
whether excessive safety design could lead to licensing uncertainty, unnecessary costs, or delays are not issues material to the high-level waste repository construction authorization proceeding; CLI-09-14, 69 NRC 580 (2009)

SAFETY REVIEW

there is no legal requirement that the Staff find that the proposed design is not too conservative or that the associated costs are not excessive as part of its safety review of the high-level waste repository construction authorization application; CLI-09-14, 69 NRC 580 (2009)

SANCTIONS

boards lack authority to establish prospective sanctions for any failure by the Staff and/or the applicant to comply with the Board's notice conditions; CLI-09-2, 69 NRC 55 (2009)
licensing boards have awarded payment of litigation fees and expenses from a licensee to an intervenor if there has been legal harm to the intervenors caused by some activity or action of the licensee; LBP-09-1, 69 NRC 11 (2009)
licensing boards have broad discretion to sanction willful, prejudicial, and bad-faith behavior; LBP-09-1, 69 NRC 11 (2009)
when a participant fails to meet its obligations, a board should consider the imposition of sanctions against the offending party; LBP-09-1, 69 NRC 11 (2009)

SCHEDULE, BRIEFING

obligations of parties include participation within the schedule established for the proceeding despite the burden on a participant's time and resources and despite uncertainties engendered by the potential for new information; CLI-09-8, 69 NRC 317 (2009)

SECRETARY OF THE COMMISSION

referral of petitioner's motion to admit a late-filed contention effectively returns jurisdiction to the licensing board to rule on the motion; CLI-09-5, 69 NRC 115 (2009)

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the Secretary of the Commission has authority to refer a motion to the board for any action the board deems appropriate; CLI-09-5, 69 NRC 115 (2009)

SECURITY

a domestic corporation in which a foreign entity has an ownership interest is considered controlled or dominated if its will is subjugated to the will of the foreign entity on primary safety matters or access policies that may be inimical to the national defense and security of the United States; LBP-09-4, 69 NRC 170 (2009)

access control measures to prevent exposure to radiation from slag and baghouse dust piles until final decommissioning is completed are discussed; CLI-09-1, 69 NRC 1 (2009)

NRC has not established an ownership interest threshold or plateau above which a foreign entity is presumed to have control or domination over the applicant; LBP-09-4, 69 NRC 170 (2009)

the Atomic Energy Act restriction on foreign ownership focuses on safeguarding access to nuclear materials, and not on other licensing matters; LBP-09-4, 69 NRC 170 (2009)

the decision of whether or not to grant a license to a corporation hinges on whether the applicant is being controlled or dominated by the foreign entity; LBP-09-4, 69 NRC 170 (2009)

until decommissioning is completed, a licensee must limit actions to those related to decommissioning and control access to restricted areas until they are suitable for release; CLI-09-1, 69 NRC 1 (2009)

See also Common Defense and Security

SENSITIVE UNCLASSIFIED NONSAFEGUARDS INFORMATION

a SUNSI requester files a challenge to NRC Staff's adverse determination with respect to access to SUNSI with the presiding officer, and the NRC Staff may file a reply to the requester's challenge; LBP-09-5, 69 NRC 303 (2009)

although the SUNSI access procedures do not impose a high threshold for demonstrating need, they must be applied consistent with the principle that it is important to prevent unnecessary disclosure of sensitive information; LBP-09-5, 69 NRC 303 (2009)

if a SUNSI request is denied, the NRC Staff shall briefly state the reasons for the denial; LBP-09-5, 69 NRC 303 (2009)

if petitioners offer a reason for needing information material to the findings a licensing board must make and otherwise explain why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention, they would satisfy the need criterion; LBP-09-5, 69 NRC 303 (2009)

in adjudicating petitioners' appeal from the NRC Staff's denial of their request for access to sensitive unclassified nonsafeguards information, boards consider whether Staff correctly applied the criteria established by the Commission; LBP-09-5, 69 NRC 303 (2009)

NRC is explicitly prohibited by law from paying the expenses of or otherwise compensating intervenors, and thus cannot grant petitioners funds to prepare requests for access to safeguards information or sensitive unclassified nonsafeguards information; CLI-09-4, 69 NRC 80 (2009)

petitioner's lack of access to SUNSI may hinder it in its ability to demonstrate why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention, but this does not absolve a petitioner from at least endeavoring to address this criterion; LBP-09-5, 69 NRC 303 (2009)

requests for access must demonstrate a reasonable basis to believe that a potential party is likely to establish standing to intervene and that the proposed recipient has a need for the SUNSI; LBP-09-5, 69 NRC 303 (2009)

SUNSI requests need not be accompanied by affidavits or include lengthy, detailed justifications addressing the likelihood of standing; LBP-09-5, 69 NRC 303 (2009)

SUNSI requests need to include the name and address of the potential party and a description of the potential party's particularized interest that could be harmed by the proposed licensing action sufficient to demonstrate a reasonable basis to conclude that he or she could likely establish standing; LBP-09-5, 69 NRC 303 (2009)

the procedure for seeking access to SUNSI does not provide a method for general or topical access, but only access to information necessary to meaningfully participate in an adjudicatory proceeding and to provide the basis and specificity of a proffered contention; LBP-09-5, 69 NRC 303 (2009)

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- the requirement to discuss the basis for a proffered contention to obtain access to SUNSI is not to be equated with the discussion that would be necessary to support an admissible contention; LBP-09-5, 69 NRC 303 (2009)
- the standard of review in an appeal from an NRC Staff denial of a SUNSI request is *de novo*; LBP-09-5, 69 NRC 303 (2009)
- to satisfy the likelihood of establishing standing criteria in the context of a SUNSI request, petitioner organizations are required to provide sufficient information to allow the NRC Staff to conclude that the requirements for standing could likely be satisfied; LBP-09-5, 69 NRC 303 (2009)
- SEVERE ACCIDENT MITIGATION ALTERNATIVES ANALYSIS**
- a NEPA analysis of the potential impacts of deliberate attacks on a spent fuel pool and analysis of alternatives to mitigate spent fuel pool accidents are beyond the scope of a license renewal proceeding and therefore inadmissible; CLI-09-10, 69 NRC 521 (2009)
- additional briefing is requested on whether any additional severe accident mitigation alternatives should have been identified as potentially cost-beneficial, not whether further analysis may refine the details in the SAMA NEPA analysis; CLI-09-11, 69 NRC 529 (2009)
- all nuclear safety and environmental issues concerning severe accident mitigation design alternatives associated with NRC's environmental assessment for the AP1000 design and Appendix 1B of the generic Design Control Document are considered resolved by the Commission; LBP-09-2, 69 NRC 87 (2009)
- an environmental impact statement must disclose measures that will mitigate potential adverse environmental impacts; LBP-09-4, 69 NRC 170 (2009)
- contention challenging a particular use of a straight-line Gaussian air dispersion model in the applicant's SAMA analysis is admissible in a license renewal proceeding; CLI-09-11, 69 NRC 529 (2009)
- SITE CHARACTERIZATION**
- the scope of admissible issues in the high-level waste repository proceeding is discussed; LBP-09-6, 69 NRC 367 (2009)
- SITE SELECTION**
- when reviewing a license application filed by a private applicant, as opposed to a federally sponsored project, an agency may give substantial weight to the stated preferences of the applicant; LBP-09-7, 69 NRC 613 (2009)
- SOURCE MATERIALS LICENSES**
- there is no statutory or regulatory bar, per se, on a foreign-owned or -controlled company holding a source materials license, whether as a licensee or as a parent entity; CLI-09-9, 69 NRC 331 (2009)
- SPENT FUEL POOLS**
- a NEPA analysis of the potential impacts of deliberate attacks on a spent fuel pool and analysis of alternatives to mitigate spent fuel pool accidents are beyond the scope of a license renewal proceeding and therefore inadmissible; CLI-09-10, 69 NRC 521 (2009)
- STANDARD OF PROOF**
- to satisfy the reasonable assurance standard for its aging management program, a license renewal applicant must make a showing that meets the preponderance of the evidence threshold of compliance with the applicable regulations, not a 95% confidence level of compliance; CLI-09-7, 69 NRC 235 (2009)
- STANDARD OF REVIEW**
- although the Commission has authority to make *de novo* findings of fact, it does not do so where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-09-7, 69 NRC 235 (2009)
- an appeal from an NRC Staff denial of a SUNSI request is reviewed *de novo*; LBP-09-5, 69 NRC 303 (2009)
- the Commission cannot find clear error in a board's failing to acknowledge an argument that was not brought to its attention and to which the petitioners had no opportunity to respond; CLI-09-12, 69 NRC 535 (2009)
- the Commission defers to boards' determinations on standing and the admissibility of contentions absent a finding of error of law or abuse of discretion; CLI-09-7, 69 NRC 235 (2009); CLI-09-12, 69 NRC 535 (2009)

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the Commission will review legal questions *de novo*, and will reverse a licensing board's legal rulings if they are a departure from or contrary to established law; CLI-09-7, 69 NRC 235 (2009)

the Commission's standard of clear error for overturning a board's factual finding is quite high, and the Commission defers to its boards' findings unless clearly erroneous, that is, not even plausible in light of the record viewed in its entirety; CLI-09-7, 69 NRC 235 (2009)

unless there is a strong reason to believe that in a particular case a board has overlooked or misunderstood important evidence, the Commission will defer to its findings of fact; CLI-09-7, 69 NRC 235 (2009)

STANDING TO INTERVENE

a board did not act unreasonably in basing standing on potential harm from new operations that would be similar to harm petitioner claims he has suffered from existing operations; CLI-09-12, 69 NRC 535 (2009)

a board may grant party status only to a single representative for each affected federally recognized Indian tribe; LBP-09-6, 69 NRC 367 (2009)

a licensing board must assess an intervention petition to determine whether the elements of standing are met even if there are no objections to a petitioner's standing; LBP-09-3, 69 NRC 139 (2009)

a person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy; CLI-09-9, 69 NRC 331 (2009)

although Article III of the Constitution does not constrain the NRC hearing process, and NRC hearings therefore are not governed by judicially created standing doctrine, the Commission nonetheless has generally looked to judicial concepts of standing where appropriate to determine those interests affected within the meaning of section 189a of the Atomic Energy Act; LBP-09-1, 69 NRC 11 (2009)

although petitioner bears the burden of demonstrating standing, in ruling on standing a licensing board is to construe the petition in favor of the petitioner; LBP-09-1, 69 NRC 11 (2009); LBP-09-2, 69 NRC 87 (2009); LBP-09-3, 69 NRC 139 (2009)

an affected federally recognized Indian tribe is automatically entitled to participate in the high-level waste proceeding; LBP-09-6, 69 NRC 367 (2009)

any affected unit of local government need not address standing in the high-level waste proceeding, but rather shall be considered a party provided that it files at least one admissible contention in accordance with 10 C.F.R. 2.309(f); LBP-09-6, 69 NRC 367 (2009)

as long as petitioners reside within an area that could realistically be impacted if an accidental release occurs, it is reasonable and consistent with Atomic Energy Act § 189a to find that they have standing to challenge applicant's safety claims and its environmental analysis under the National Environmental Policy Act; LBP-09-4, 69 NRC 170 (2009)

contentions are comparable to neither "forms of relief" nor Article III "claims," but are instead comparable to various "grounds" that may be asserted in opposition to a proposed agency action at issue; LBP-09-1, 69 NRC 11 (2009)

delaying the opening of the Yucca Mountain repository would inflict concrete harm on members of an organization who expend substantial sums to operate their own storage facilities; LBP-09-6, 69 NRC 367 (2009)

discretionary intervention is allowed because petitioner's interests are within the zone of interests related to the proceeding and its extensive participation in similar proceedings in the past would provide valuable insight in developing a sound record; LBP-09-6, 69 NRC 367 (2009)

establishing standing for a contention involves a showing of a concrete and particularized injury that is fairly traceable to the challenged action and likely to be redressed by a favorable decision; LBP-09-1, 69 NRC 11 (2009)

even if injury sufficient to show an existing case or controversy is established, this does not confer standing with regard to injunctive relief; LBP-09-1, 69 NRC 11 (2009)

if petitioner is found not to be in substantial and timely compliance with the LSN requirements, that petitioner may request party status upon a subsequent showing of compliance, but any grant of a request is conditioned on accepting the status of the proceeding at the time of admission; LBP-09-6, 69 NRC 367 (2009)

in a materials licensing proceeding, petitioners have the burden to show a specific and plausible means whereby the licensing decision may harm them; CLI-09-9, 69 NRC 331 (2009)

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in cases involving construction or operation of a nuclear power reactor, proximity to the proposed facility has been considered sufficient to establish the requisite standing elements; LBP-09-3, 69 NRC 139 (2009)

in determining whether an individual or organization should be granted party status in a proceeding based on standing as of right, the agency applies contemporaneous judicial standing concepts; LBP-09-1, 69 NRC 11 (2009); LBP-09-3, 69 NRC 139 (2009); LBP-09-6, 69 NRC 367 (2009)

in ruling on petitions to intervene in the high-level waste proceeding, boards must consider any failure of the petitioner to participate as a potential party in the pre-license application phase under 10 C.F.R. Part 2, Subpart J; LBP-09-6, 69 NRC 367 (2009)

in the high-level waste proceeding, the Commission conferred standing as of right on certain parties; LBP-09-6, 69 NRC 367 (2009)

in the high-level waste repository proceeding, a state can meet the requirements for standing as a matter of right, based on the threat posed by transportation of radioactive waste through that state; LBP-09-6, 69 NRC 367 (2009)

intervention is allowable to those who wish to support a proposal that will affect their interests if the proceeding has one outcome rather than another; LBP-09-6, 69 NRC 367 (2009)

intervention is permitted in the high-level waste repository proceeding by the state and local governmental bodies in the geologic repository operations area, and by any affected federally recognized Indian tribe; LBP-09-6, 69 NRC 367 (2009)

it is not acceptable in NRC practice for petitioner to claim standing based on vague assertions, and when that fails, to attempt to repair the defective pleading with fresh details offered for the first time in its reply; LBP-09-2, 69 NRC 87 (2009)

licensing boards are bound by Commission and appeal board precedent and therefore are not at liberty to reject the 50-mile proximity presumption; LBP-09-4, 69 NRC 170 (2009)

NRC has acknowledged the analogous standing of the part-owner of a facility; LBP-09-6, 69 NRC 367 (2009)

once a party demonstrates that it has standing to intervene, that party may raise any contention that, if proved, will afford the party relief from the injury it relies upon for standing; CLI-09-9, 69 NRC 331 (2009)

petitioner may not be granted party status in the high-level waste proceeding if it cannot demonstrate substantial and timely compliance with the requirements in 10 C.F.R. 2.1003 concerning the availability of documentary material on the Licensing Support Network; LBP-09-6, 69 NRC 367 (2009)

petitioners are not required to show standing for each contention separately; LBP-09-1, 69 NRC 11 (2009)

petitioners need not show a nexus between interest upon which standing is based and the substance of their proposed contentions; CLI-09-9, 69 NRC 331 (2009)

proximity alone does not suffice for standing in materials licensing cases; CLI-09-12, 69 NRC 535 (2009)

requirement to show distinct new harm from a license amendment application would not preclude standing to contest commencement of new operations at a separate site, where petitioner showed potential for harm to himself from new operation; CLI-09-12, 69 NRC 535 (2009)

standing as of right is not available in export license proceedings but the Commission has exercised its discretion to hold an open legislative-type hearing; LBP-09-1, 69 NRC 11 (2009)

standing is granted to an Indian tribe based on its interest in cultural artifacts onsite that could be affected by a proposed licensing action; CLI-09-9, 69 NRC 331 (2009)

standing was not granted where litigant tried to rely on very narrow statutory provisions to challenge the much broader aspects of a statute that had no meaningful relationship to the litigant's situation; LBP-09-6, 69 NRC 367 (2009)

SUNSI requests need not be accompanied by affidavits or include lengthy, detailed justifications addressing the likelihood of standing; LBP-09-5, 69 NRC 303 (2009)

SUNSI requests need to include the name and address of the potential party and a description of the potential party's particularized interest that could be harmed by the proposed licensing action sufficient to demonstrate a reasonable basis to conclude he or she could likely establish standing; LBP-09-5, 69 NRC 303 (2009)

the Commission defers to a board's rulings on standing and contention admissibility in the absence of clear error or abuse of discretion; CLI-09-9, 69 NRC 331 (2009); CLI-09-12, 69 NRC 535 (2009)

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- the common thread in decisions applying the 50-mile proximity presumption is a recognition of the potential effects at significant distances from the facility of the accidental release of fissionable materials; LBP-09-4, 69 NRC 170 (2009)
- the increased risk of living within 50 miles of a nuclear power plant constitutes injury-in-fact, is traceable to the challenged action, and is likely to be redressed by a favorable decision that either denies a license or mandates compliance with legal requirements that protect the interests of the petitioners; LBP-09-4, 69 NRC 170 (2009)
- the proximity presumption does not permit persons with no actual or imminent claim of injury to obtain a hearing; LBP-09-4, 69 NRC 170 (2009)
- the rationale for the 50-mile presumption does not depend upon the probability that a proposed reactor is likely to generate an accidental release of radioactive materials, but rather the fact that, if such an accident were to occur, it could realistically impact the geographic area within which the petitioners reside; LBP-09-4, 69 NRC 170 (2009)
- the requirement to show actual injury derives ultimately from the doctrine of standing, a constitutional principle that prevents courts of law from undertaking tasks assigned to the political branches; LBP-09-1, 69 NRC 11 (2009)
- the source of the practice in NRC proceedings of referring to judicial standing concepts is a 1976 Commission decision in which it affirmed the appeal board's determination that petitioners in the case did not meet the judicial standing test; LBP-09-1, 69 NRC 11 (2009)
- the test to demonstrate prudential standing is not meant to be especially demanding; LBP-09-6, 69 NRC 367 (2009)
- the ultimate test for standing is not whether NRC's test conforms to that applied by federal courts, but whether NRC's test represents a reasonable construction of section 189a of the Atomic Energy Act; LBP-09-4, 69 NRC 170 (2009)
- there is no conflict between judicial concepts of standing and the NRC's 50-mile presumption of standing; LBP-09-4, 69 NRC 170 (2009)
- there is no requirement for any nexus between an asserted injury and a contention; LBP-09-1, 69 NRC 11 (2009)
- to establish standing, economic interests must be linked to potential radiological or environmental risks; LBP-09-6, 69 NRC 367 (2009)
- under the test for prudential standing, a party's attempt to establish standing will fail only if the petitioner's interests are so marginally related to or inconsistent with the purposes implicit in the statute that it cannot reasonably be assumed that Congress intended to permit the suit; LBP-09-6, 69 NRC 367 (2009)
- where a party's procedural right has been violated, that party has standing to contest the procedural violation even when the underlying interest that the procedural right seeks to protect does not face an "immediate" threat; CLI-09-9, 69 NRC 331 (2009)
- where an abrogated treaty was the only grounds supporting an Indian group's claim of standing, the board correctly found that the Indian group did not have standing as a party to the proceeding; CLI-09-9, 69 NRC 331 (2009)
- where there is no obvious potential for offsite harm, petitioner must show a specific and plausible means of how the challenged action may harm him or her; CLI-09-9, 69 NRC 331 (2009)
- STANDING TO INTERVENE, ORGANIZATIONAL
- affidavits by an individual with standing authorizing an organization to represent him must be filed with specific reference to the proceeding in which standing is sought for the organization; CLI-09-9, 69 NRC 331 (2009)
- an organization seeking to intervene in a representational capacity must demonstrate that the licensing action will affect at least one of its members, identify that member by name and address, and show that it is authorized by that member to request a hearing on his or her behalf; LBP-09-6, 69 NRC 367 (2009)
- an organization that wishes to intervene in a proceeding may do so either in its own right by demonstrating harm to its organizational interests, or in a representational capacity by demonstrating harm to its members; LBP-09-2, 69 NRC 87 (2009)
- economic interests of an organization representing nuclear utility members confer standing on the organization; LBP-09-6, 69 NRC 367 (2009)

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petitioner organizations have established standing based on their members' proximity to transportation routes, even where it was not possible to predict with accuracy which of its members were most likely to be harmed or the extent of the damage; LBP-09-6, 69 NRC 367 (2009)

petitioner's use of litigation to speed the licensing of the Yucca Mountain repository is germane to its purpose and does not require the actual participation of any of its members individually; LBP-09-6, 69 NRC 367 (2009)

the member of a organization that seeks standing must qualify for standing in his or her own right, and the interests that the organization seeks to protect must be germane to its own purpose; LBP-09-6, 69 NRC 367 (2009)

there are certain organizations for which member authorization for organizational standing might be presumed; LBP-09-6, 69 NRC 367 (2009)

to satisfy the likelihood of establishing standing criteria in the context of a SUNSI request, petitioner organizations are required to provide sufficient information to allow the NRC Staff to conclude that the requirements for standing could likely be satisfied; LBP-09-5, 69 NRC 303 (2009)

when an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization for intervention; LBP-09-6, 69 NRC 367 (2009)

STANDING TO INTERVENE, REPRESENTATIONAL

an organization that wishes to intervene in a proceeding may do so either in its own right by demonstrating harm to its organizational interests, or in a representational capacity by demonstrating harm to its members; LBP-09-2, 69 NRC 87 (2009)

it might be reasonably inferred that by joining an organization, the members are implicitly authorizing it to represent any personal interests which might be affected by the proceeding; LBP-09-6, 69 NRC 367 (2009)

there are certain organizations for which member authorization for organizational standing might be presumed; LBP-09-6, 69 NRC 367 (2009)

to satisfy the likelihood of establishing standing criteria in the context of a SUNSI request, petitioner organizations are required to provide sufficient information to allow the NRC Staff to conclude that the requirements for standing could likely be satisfied; LBP-09-5, 69 NRC 303 (2009)

when an entity seeks to intervene on behalf of its members, that entity must show that it has an individual member who can fulfill all the necessary standing elements and has authorized the organization to represent those interests; LBP-09-3, 69 NRC 139 (2009)

when an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization; LBP-09-6, 69 NRC 367 (2009)

when an organization takes formal corporate action to initiate litigation not only germane but integral to its purpose, that action can constitute the requisite, if implicit, proof of authorization for intervention; LBP-09-6, 69 NRC 367 (2009)

STATE GOVERNMENT

in the high-level waste repository proceeding, a state can meet the requirements for standing as a matter of right, based on the threat posed by transportation of radioactive waste through that state; LBP-09-6, 69 NRC 367 (2009)

intervention is permitted in the high-level waste repository proceeding by the state and local governmental bodies in the geologic repository operations area; LBP-09-6, 69 NRC 367 (2009)

STATUTES

adjudication is not the proper forum for challenging applicable statutory requirements or the basic structure of the agency's regulatory process; CLI-09-14, 69 NRC 580 (2009); LBP-09-3, 69 NRC 139 (2009)

See also Atomic Energy Act; Energy and Water Development Appropriations Act; Energy Reorganization Act; National Environmental Policy Act

STATUTORY CONSTRUCTION

references to the word "private" in the legislative history of the Atomic Energy Act appear in the context of a general discussion of the purpose of the AEA, which recognized that the prior law placed prohibitions on private participation in atomic energy; LBP-09-6, 69 NRC 367 (2009)

the Department of Energy is not a "person" for purposes of AEA § 11s; CLI-09-14, 69 NRC 580 (2009)

SUBJECT INDEX

the ultimate test for standing is not whether NRC's test conforms to that applied by federal courts, but whether NRC's test represents a reasonable construction of section 189a of the Atomic Energy Act; LBP-09-4, 69 NRC 170 (2009)

STAY

no instance has occurred in NRC jurisprudence where either the Commission or its boards have ruled that expenses of any kind constituted irreparable injury; CLI-09-6, 69 NRC 128 (2009)

STAY OF EFFECTIVENESS

issuance of a license is not stayed by a petition for review; CLI-09-7, 69 NRC 235 (2009)

SUBPART G PROCEDURES

Commission rules in 10 C.F.R. 2.311(d) set a 10-day limit for appealing the selection of a particular hearing procedure because an appeal cannot wait until a board issues a decision on the merits of a contention; CLI-09-7, 69 NRC 235 (2009)

requirements for applying Subpart G to a particular proceeding are set out in 10 C.F.R. 2.700; CLI-09-7, 69 NRC 235 (2009)

the rule for Subpart G procedures explicitly applies to eyewitnesses, not expert witnesses; CLI-09-7, 69 NRC 235 (2009)

these hearing procedures apply only to certain enumerated types of proceedings, not including materials license proceedings; LBP-09-1, 69 NRC 11 (2009)

SUBPART L PROCEDURES

witness panels may be questioned in areas that, in the board's judgment, require additional clarification and parties may be asked to provide proposed written questions both before and during the hearing in order to assist the board in its questioning; CLI-09-7, 69 NRC 235 (2009)

SUBPART L PROCEEDINGS

cross-examination by the parties is allowed only when the presiding officer decides that it is necessary to ensure an adequate record for decision; CLI-09-7, 69 NRC 235 (2009)

SUSPENSION OF PROCEEDING

a state could seek to have licensing proceedings suspended pending an NRC decision on its rulemaking petition, if it participated in the proceedings as an interested state; CLI-09-10, 69 NRC 521 (2009)

TERMINATION OF LICENSE

a license is terminated even if the licensee decommissions the site in accordance with alternative decommissioning criteria pursuant to 10 C.F.R. 20.1404; CLI-09-1, 69 NRC 1 (2009)

the criteria for acceptability of a site for license termination under restricted conditions are discussed; CLI-09-1, 69 NRC 1 (2009)

whether a site is suitable for unrestricted or restricted release, the license is terminated upon the completion of decommissioning; CLI-09-1, 69 NRC 1 (2009)

TERMINATION OF PROCEEDING

following termination of a proceeding, the proper avenue for a person challenging an existing license is to file a request to modify, suspend, or revoke a license; CLI-09-5, 69 NRC 115 (2009)

proceedings on license amendments continue until they are over, even if the amendment is issued in the interim; CLI-09-5, 69 NRC 115 (2009)

TERRORISM

a NEPA analysis of the potential impacts of deliberate attacks on a spent fuel pool and analysis of alternatives to mitigate spent fuel pool accidents are beyond the scope of a license renewal proceeding and therefore inadmissible; CLI-09-10, 69 NRC 521 (2009)

although the U.S. Court of Appeals for the Ninth Circuit has held that the NRC must address certain terrorism-related matters to satisfy its NEPA obligations, the Commission has stated that it does not consider itself bound by that holding outside the Ninth Circuit; LBP-09-2, 69 NRC 87 (2009)

the National Environmental Policy Act is not an appropriate vehicle for exploring questions about the potential for a terrorist attack upon a proposed nuclear facility; LBP-09-2, 69 NRC 87 (2009)

TESTING

leach rate testing protocol for slag and baghouse dust piles is discussed; CLI-09-1, 69 NRC 1 (2009)

THERMAL ANALYSIS

thermal effluent discharge impacts of the proposed cooling system intake and discharge structures on aquatic resources are discussed; LBP-09-7, 69 NRC 613 (2009)

SUBJECT INDEX

TRANSPORTATION OF RADIOACTIVE MATERIALS

in the high-level waste repository proceeding, a state can meet the requirements for standing as a matter of right, based on the threat posed by transportation of radioactive waste through that state; LBP-09-6, 69 NRC 367 (2009)

petitioner organizations have established standing based on their members' proximity to transportation routes, even where it was not possible to predict with accuracy which of its members were most likely to be harmed or the extent of the damage; LBP-09-6, 69 NRC 367 (2009)

TREATIES

a Native American nation retains its water rights even after its land rights have been extinguished, but those reserved rights must originate in a treaty in order to survive; LBP-09-6, 69 NRC 367 (2009)

where an abrogated treaty was the only grounds supporting an Indian group's claim of standing, the board correctly found that the Indian group did not have standing as a party to the proceeding; CLI-09-9, 69 NRC 331 (2009)

UNCONTESTED LICENSE APPLICATIONS

NRC Staff is authorized to issue a renewed license once the Director of the Office of Nuclear Reactor Regulation has made the appropriate findings; CLI-09-7, 69 NRC 235 (2009)

UNRESTRICTED RELEASE

a license is terminated upon the completion of decommissioning; CLI-09-1, 69 NRC 1 (2009)

the unavailability of funding for decommissioning adequate to achieve unrestricted release of a site is not one of the conditions specified in 10 C.F.R. 20.1403(a); CLI-09-1, 69 NRC 1 (2009)

URANIUM ENRICHMENT FACILITIES

neither a uranium enrichment facility nor a nuclear power plant may be owned, controlled, or dominated by a foreign entity; CLI-09-9, 69 NRC 331 (2009)

WAIVER

even if the Commission could waive the application fee for access to safeguards information, the mere fact that petitioners are public interest organizations provides no special reason for departing from well-established NRC practice; CLI-09-4, 69 NRC 80 (2009)

WAIVER OF OBJECTION

a party's failure to raise a matter in its proposed findings of fact and conclusions of law seemingly waives these items as grounds for its challenge to the final environmental impact statement; LBP-09-7, 69 NRC 613 (2009)

WAIVER OF RULE

NRC regulations may not be attacked in individual NRC adjudicatory proceedings, unless the Commission waives the rule at issue for a particular proceeding, or the rule is changed or suspended due to a rulemaking review; CLI-09-3, 69 NRC 68 (2009); CLI-09-10, 69 NRC 521 (2009); LBP-09-6, 69 NRC 367 (2009)

requests for rule waiver or exception must be accompanied by an affidavit that identifies with particularity the special circumstances alleged to justify the waiver or exception requested; LBP-09-6, 69 NRC 367 (2009)

the Commission does not grant waivers where the circumstances on which the waiver's proponent relies are common to a large class of applicants or facilities; CLI-09-3, 69 NRC 68 (2009)

waiver of a rule or regulation is granted on the sole ground that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation would not serve the purposes for which the rule or regulation was adopted; LBP-09-6, 69 NRC 367 (2009)

WASTE CONFIDENCE RULE

a low-level waste confidence rule would not, if it followed the pattern set by the high-level waste confidence rule, alter any requirements to consider in the adjudicatory proceeding the environmental impacts of waste storage during the term of the license; CLI-09-3, 69 NRC 68 (2009)

a waste confidence rulemaking is not the appropriate instrument for resolving low-level radioactive waste issues, particularly issues of disposal; CLI-09-3, 69 NRC 68 (2009)

petitioners and others who believe the Waste Confidence Rule needs revision must use rulemaking proceedings to express their concerns; LBP-09-4, 69 NRC 170 (2009)

See also Radioactive Waste Disposal

WASTE DISPOSAL

See Radioactive Waste Disposal

SUBJECT INDEX

WASTE STORAGE

See Radioactive Waste Storage

WATER QUALITY

extent and duration of dredging, its impacts on water quality, the disposal of any dredged material, and the impacts on aquatic biota are discussed; LBP-09-7, 69 NRC 613 (2009)

WATER SUPPLY

a Native American nation retains its water rights even after its land rights have been extinguished, but those reserved rights must originate in a treaty in order to survive; LBP-09-6, 69 NRC 367 (2009)

WETLANDS

the board erred in admitting a contention concerning the economic value of wetlands without requiring petitioners to demonstrate that the proposed licensing action or no-action alternative would have any effect on wetlands; CLI-09-9, 69 NRC 331 (2009)

WITNESSES, EXPERT

expert opinion must not be limited to bald conclusory statements such as that the application under consideration is "deficient," "inadequate," or "wrong"; LBP-09-6, 69 NRC 367 (2009)

petitioner does not have to provide a complete or final list of its experts or evidence or prove the merits of its contention at the admissibility stage; CLI-09-12, 69 NRC 535 (2009); LBP-09-6, 69 NRC 367 (2009)

there is no requirement that an expert's opinion must include specific references to supporting sources and documents; LBP-09-6, 69 NRC 367 (2009)

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- BELLEVILLE NUCLEAR POWER PLANT, Units 3 and 4; Docket Nos. 52-014-COL, 52-015-COL
COMBINED LICENSE; February 17, 2009; MEMORANDUM AND ORDER; CLI-09-3, 69 NRC 68
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- CALVERT CLIFFS NUCLEAR POWER PLANT, Unit 3; Docket No. 52-016-COL
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- FERMI NUCLEAR POWER PLANT, Unit 3; Docket No. 52-033-COL
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- HIGH-LEVEL WASTE REPOSITORY; Docket No. 63-001-HLW
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- INDIAN POINT, Units 2 and 3; Docket Nos. 50-247, 50-286
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- IN SITU LEACH FACILITY, Crawford, Nebraska; Docket No. 40-8943-MLA
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- MILLSTONE NUCLEAR POWER STATION, Unit 3; Docket No. 50-423-OLA
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69 NRC 55 (2009)
- OYSTER CREEK NUCLEAR GENERATING STATION; Docket No. 50-219-LR
LICENSE RENEWAL; April 1, 2009; MEMORANDUM AND ORDER; CLI-09-7, 69 NRC 235 (2009)
- PILGRIM NUCLEAR POWER STATION; Docket No. 50-293-LR
LICENSE RENEWAL; June 4, 2009; MEMORANDUM AND ORDER; CLI-09-10, 69 NRC 521 (2009)
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CLI-09-11, 69 NRC 529 (2009)
- SHEARON HARRIS NUCLEAR POWER PLANT, Units 2 and 3; Docket Nos. 52-022-COL, 52-023-COL
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Contention TC-1 in Response to the Commission's Remand in CLI-09-8)
- SOUTH TEXAS PROJECT, Units 3 and 4
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VIRGIL C. SUMMER NUCLEAR STATION, Units 2 and 3; Docket Nos. 52-027-COL, 52-028-COL
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LBP-09-2, 69 NRC 87 (2009)

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Contention Admissibility); LBP-09-3, 69 NRC 139 (2009)

COMBINED LICENSE; June 25, 2009; MEMORANDUM AND ORDER; CLI-09-13, 69 NRC 575
(2009)